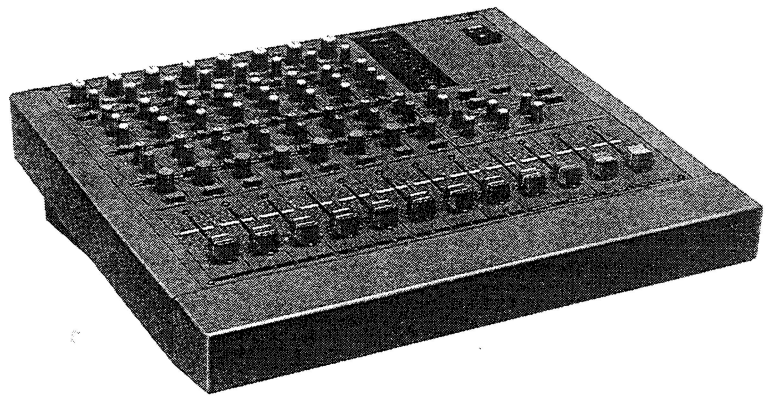
MXP-210

US Model
Canadian Model
AE Model
UK Model



The table kit attached to both sides and the front of the unit is not supplied.

AUDIO MIXER

SPECIFICATIONS

Frequency response	20 Hz to 20 kHz $^{+0.5}_{-1.5}$ dB
Harmonic distortion	Less than 0.3% (1 kHz, +4 dBs)
Equivalent input noise	
Microphone input	−123 dBs (input: terminated in 150 ohms, 20 Hz to 20 kHz)
Line input	−80 dBs (input: short-circuited, 20 Hz to 20 kHz)
Residual noise	
Master fader at "0"	Less than −85 dBs
Channel fader at "0"	Less than −70 dBs
Cross-talk	70 dB (10 kHz)
Equalizer	
High	10 kHz ±15 dB, shelving
Middle	2.8 kHz ±15 dB
Low	100 Hz ±15 dB, shelving
Low-cut filter	120 Hz, 12 dB/oct.
Oscillator	
Frequency	1 kHz
Harmonic distortion	Less than 3%
Talk-back microphone	Electret-condenser microphone
VU meter	15-element LED bar graph VU meters
Power requirements	120 V AC (for USA and Canada) 100 to120V/220 to 240 V AC (for other countries) 50/60 Hz
Power consumption	24 W
Dimensions	Approx. 424 × 132 × 365 mm (w/h/d) (16 3/4 × 5 1/4 × 14 3/8 inches)
Weight	Approx. 8 kg (28 lb 11 oz)
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	−20°C to +60°C (−4°F to +140°F)
Accessories supplied	AC power cord (1) Operation manual (1)
Optional accessories	Rack mount adaptor MXBK-200 Table kit MXBK-201

– Continued on next page –

SONY®

SERVICE MANUAL

Input

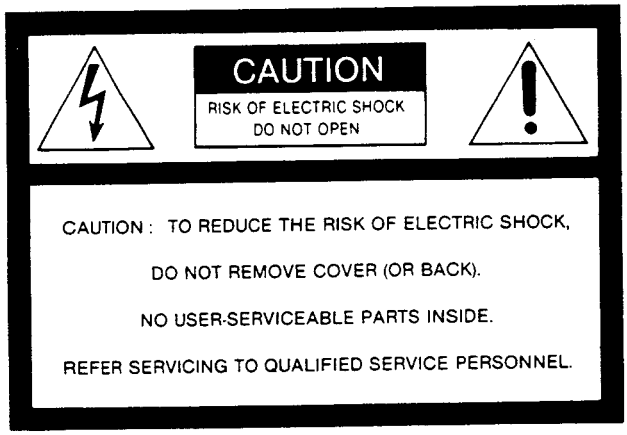
Connector	The number of connectors	Type of connector	Reference input level	Maximum input level	Input impedance
MIC/LINE IN	8	equivalent to XLR-3-31	MIC: −60 dBs LINE: −20 dBs (when TRIM controls are set to MAX)	MIC: 0 dBs LINE: +24 dBs (when TRIM controls are set to MIN)	6 kilohms, balanced
PHONO IN	2	Phono jack	−44 dBs (1 kHz)	−14 dBs (1 kHz)	47 kilohms, unbalanced
UBL IN	6	Phono jack	−10 dBs	+15 dBs (1 kHz)	47 kilohms, unbalanced
SUB IN	2	Phono jack	−10 dBs	+15 dBs (1 kHz)	8 kilohms, unbalanced
MONI IN	2	equivalent to XLR-3-31	+4 dBs	+24 dBs	15 kilohms, balanced

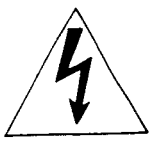
Output

Connector	The number of connectors	Type of connector	Reference output level	Maximum output level	Rated load impedance
LINE OUT	2	equivalent to XLR-3-32	+4 dBs	+24 dBs	600 ohms, balanced
LINE	2	Phono jack	−5 dBs	+15 dBs	10 kilohms, unbalanced
AUX OUT	2	Phono jack	−5 dBs	+15 dBs	10 kilohms, unbalanced
MONI OUT	2	Phono jack	−5 dBs	+15 dBs	10 kilohms, unbalanced
TB	1	Phono jack	−5 dBs	+15 dBs	10 kilohms, unbalanced
HEADPHONES	1	Stereo phone jack	—	10 mW	unbalanced

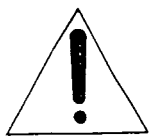
WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in the U.S.A.

Warning — This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Important — To insure that the complete system (including this peripheral) is capable of complying with the FCC requirements, it is recommended that the user make sure that the individual equipment of the complete system has a label with one of the following statements.

"This equipment has been tested with a Class A Computing Device and has been found to comply with Part 15 of FCC Rules."

-or-

"This equipment complies with the requirements in Part 15 of FCC Rules for a Class A Computing Device."

-or equivalent.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a computing device pursuant to Subpart J of Part 15 of FCC Rules.

For the customers in Canada

This apparatus complies with the Class A limits for radio noise emissions set out in Radio Interference Regulations.

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SECTION 1
OPERATION

1-1. Overview

The Sony MXP-210 is a multipurpose audio mixer which has all the essential functions required for a public address system, radio and TV broadcasting, studio recording and tape editing. Thanks to its compact and lightweight design, the unit can be used as a portable mixer for relay broadcasting as well as a studio-use mixer.

Eight channel inputs with various adjustment possibilities

Each input signal level can be independently adjusted to suit the signal output from the connected equipment and to provide excellent mixing through its own low-cut filter and equalization circuits.
With the PAN POT (panoramic potentiometer) function, each input sound image can be placed at a desired spot between the left and right channels.

Auxiliary inputs and outputs for additional mixing effects

When an echo machine or a reverberation unit is additionally connected to the auxiliary input connector, desired sound effects may be easily obtained.
One of the outputs can be used to supply signals to a fold-back speaker for players on the stage.

Monitoring of various signals

Each line and auxiliary output signal and also an input signal connected to the monitor input connector can be monitored either with headphones or speakers for accurate mixing. In addition, the PFL (pre-fader listening) function permits direct monitoring of each original incoming signal.

Power supply circuits for the external power supply system condenser microphones

The built-in power supply circuits supply the required power of 48 V DC to the connected phantom-powered microphones (designed for external power supply).

Two types of installation possible

The MXP-210 can easily be installed on a console table which can accept the unit mountable in a 19-inch standard rack by using an MXBK-200 rack mount adaptor (optional), or can be placed on a control console table with an MXBK-201 table kit (optional) attached.

1-2. Precautions

On safety

- Operate the unit only with a power source specified in the "Specifications".
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The nameplate indicating operating voltage, power consumption, etc. is located on the bottom.

On installation

Do not install the unit near a heat source such as a radiator or an air duct, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHED.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow:	Earth
Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

On operation

When the unit is not in use, turn the power off.

On cleaning

Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine, which might damage the finish.

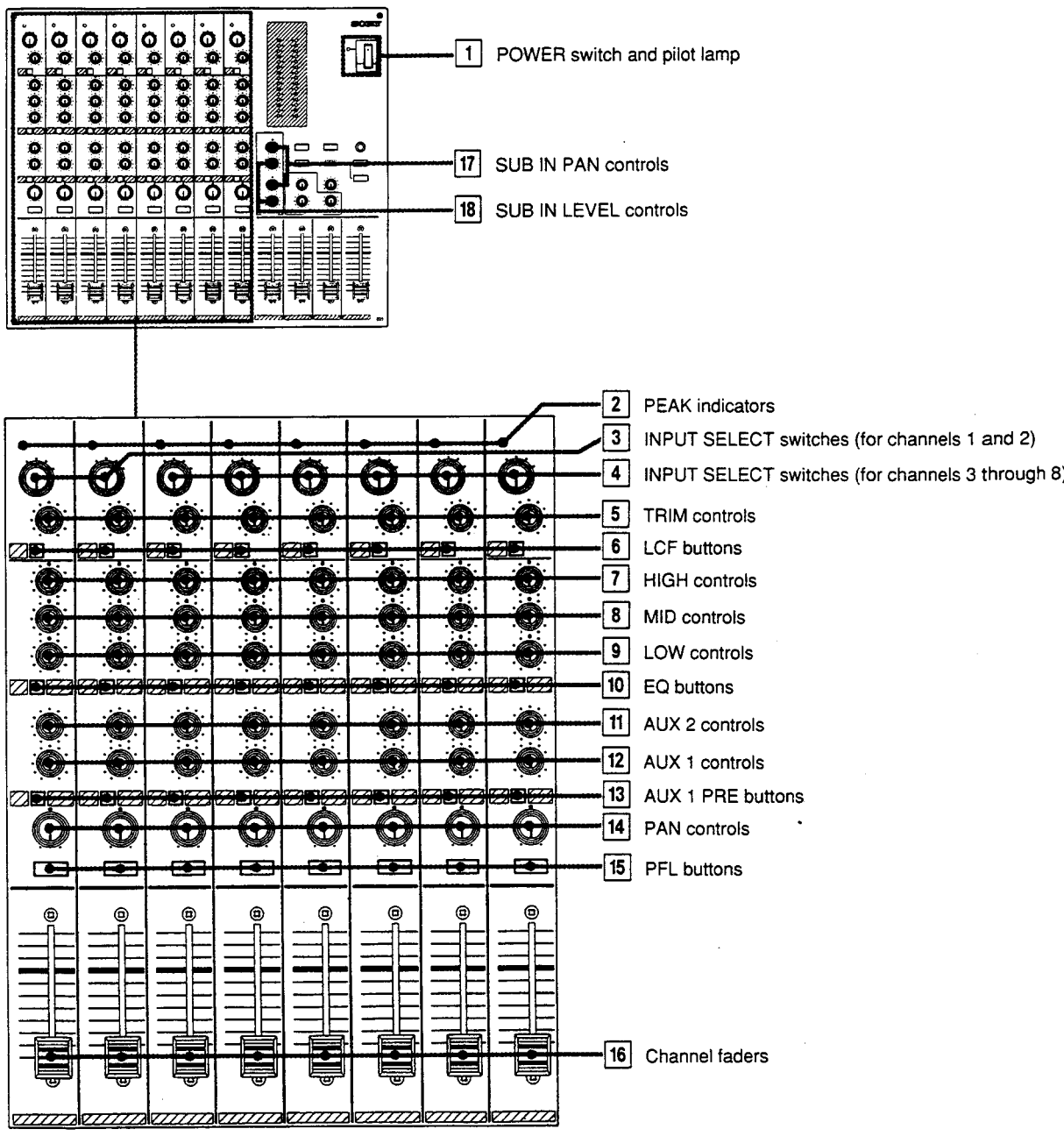
On transportation

Save the original carton and associated packing material. They will be useful should you have to transport or ship the unit.

1-3. Location and Function of Parts and Controls.

1-3-1. Power and Input Section

Control Panel


1 POWER switch and pilot lamp
17 SUB IN PAN controls
18 SUB IN LEVEL controls
2 PEAK indicators
3 INPUT SELECT switches (for channels 1 and 2)
4 INPUT SELECT switches (for channels 3 through 8)
5 TRIM controls
6 LCF buttons
7 HIGH controls
8 MID controls
9 LOW controls
10 EQ buttons
11 AUX 2 controls
12 AUX 1 controls
13 AUX 1 PRE buttons
14 PAN controls
15 PFL buttons
16 Channel faders

1 POWER switch and pilot lamp
The POWER switch turns the power of the unit on and off.
When power is supplied, the pilot lamp lights.

2 PEAK indicators
Light up if the corresponding input signal level rises to within 5 dB of the clipping level by detecting the signal level before the fader.

3 INPUT SELECT switches (for channels 1 and 2)
Used to select the input sources to channels 1 and 2.
PHONO: Signal connected to the PHONO IN connector 21.
BAL LINE: Line input connected to the MIC/LINE IN connector 23.
MIC: Microphone connected to the MIC/LINE IN connector.
MIC +48V: Phantom-powered condenser microphone connected to the MIC/LINE IN connector. Power of 48V DC is supplied to the microphone simultaneously through the MIC/LINE IN connector.

4 INPUT SELECT switches (for channels 3 through 8)
Used to select the input sources to channels 3 through 8.
UBL LINE: Unbalanced line input connected to the UBL IN connector 20.
BAL LINE: Balanced line input connected to the MIC/LINE IN connector 23.
MIC: Microphone connected to the MIC/LINE IN connector.
MIC +48V: Phantom-powered condenser microphone connected to the MIC/LINE IN connector. Power of 48V DC is supplied to the microphone simultaneously through the MIC/LINE IN connector.

5 TRIM (input gain) controls
Used to control the input signal level of each channel by about 30 dB. These controls function only when the INPUT SELECT switches 3 and 4 are set to BAL LINE, MIC or MIC +48V.
Adjust these controls so that the proper level can be obtained when each corresponding channel fader 16 is set at "7" on the level indication on the control panel. Turn the controls counterclockwise when the corresponding PEAK indicators 2 light up.

6 LCF (low cut filter) buttons
Used to attenuate the input signal level below 120 Hz at a 12 dB/octave rate.

7 HIGH (high frequency) controls
Used to equalize the sound sources for high-frequency range. The adjustable range is ±15 dB at around 10 kHz.
These controls function when the EQ buttons 10 are depressed.

8 MID (middle frequency) controls
Used to equalize the sound sources for middle-frequency range. The adjustable range is ±15 dB at around 2.8 kHz.
These controls function when the EQ buttons 10 are depressed.

9 LOW (low frequency) controls
Used to equalize the sound sources for low-frequency range. The adjustable range is ±15 dB at around 100 Hz.
These controls function when the EQ buttons 10 are depressed.

10 EQ (equalizer) buttons
Used to activate the HIGH, MID and LOW controls. When these buttons are depressed, the input signals pass through the equalizer circuits. The frequency response can be adjusted with the HIGH, MID and LOW controls.

11 AUX 2 (auxiliary output 2 level) controls
Used to adjust the level of the pre-fader signal of each channel, which is fed to auxiliary output 2. The gain margin from the reference level (the level at "7" on the level indication) to the level of the maximum setting is 10 dB.

12 AUX 1 (auxiliary output 1 level) controls
Used to adjust the level of the signal of each channel, which is fed to auxiliary output 1. The gain margin from the reference level to the level of the maximum setting is 10 dB.

13 AUX 1 PRE (auxiliary output 1 pre-fader) buttons
Used to select the signal, pre-fader or post-fader signal, which is fed to auxiliary output 1.
▀ (released): The post-fader signal of the corresponding channel is fed to auxiliary output 1.
▄ (depressed): The pre-fader signal of the corresponding channel is fed to auxiliary output 1.

14 PAN (pan pot) controls
Used to pan the incoming signals between the LINE OUT 1 and LINE OUT 2 channels. The click positions place the sound images at the center.

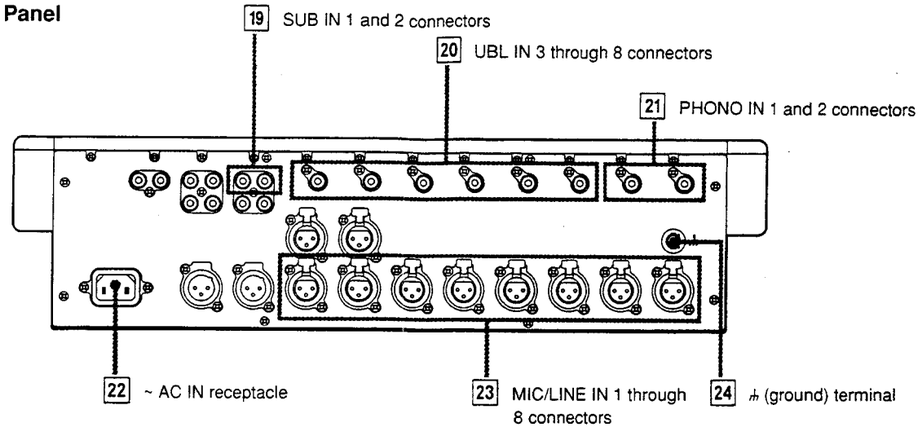
15 PFL (pre-fader listening) buttons
Used to feed the pre-fader signals from the corresponding channels to the PFL connector 42.
The input signals can be monitored with the channel faders set to "0" on the level indication.
To feed the pre-fader signals to the monitor speakers through the MONI OUT connectors 43, the PFL button 32 for an external speaker system must be depressed.
From the PHONES jack 34, a pre-fader signal is always output independent of the settings of these buttons.

16 Channel faders
Used to adjust the level of each channel signal which is fed to the line outputs for proper balance. A thick line at "7" on the level indication on the panel shows the reference level. The gain margin from the reference level to the level of the maximum setting is 10 dB.

17 SUB IN PAN (auxiliary input pan pot) controls
Used to position the sound image from the SUB IN 1 and 2 connectors 19 in the desired position between the LINE OUT 1 and 2 channels.

18 SUB IN (auxiliary input) LEVEL controls
Used to adjust the level of the signals input to the SUB IN 1 and 2 connectors 19 respectively. The gain margin from the reference level to the level of the maximum setting is 10 dB.

Connector Panel


19 SUB IN 1 and 2 connectors
20 UBL IN 3 through 8 connectors
21 PHONO IN 1 and 2 connectors
22 ~ AC IN receptacle
23 MIC/LINE IN 1 through 8 connectors
24 ⏚ (ground) terminal

19 SUB IN (auxiliary input) 1 and 2 connectors (phono jacks)
These connectors accept auxiliary input signals such as those from an echo machine.

20 UBL IN (unbalanced line input) 3 through 8 connectors (phono jacks)
These connectors accept the line output signals of tape decks and amplifiers for channels 3 through 8. Switching the input signal between these connectors and the MIC/LINE IN connectors 23 is done using the INPUT SELECT switches 4.

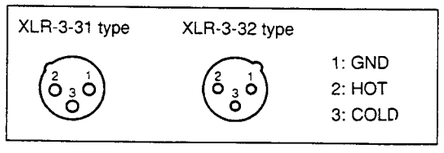
21 PHONO IN (input) 1 and 2 connectors (phono jacks)
These connectors accept the signals from record players equipped with magnetic-moving type cartridges. Switching the input signals between these connectors and the MIC/LINE IN connectors 23 is done using the INPUT SELECT switches 3.

22 ~ AC IN receptacle
Connect with the supplied AC power cord to an AC power source.

23 MIC/LINE IN (microphone/line input) 1 through 8 connectors (equivalent to XLR-3-31)
These connectors accept the signals from a tape deck or an amplifier, or the microphone signals. The power can be supplied to the phantom-powered condenser microphone if necessary. Switching the line signals, microphone signals, and power supply to the microphones is done using the INPUT SELECT switches 3 and 4.

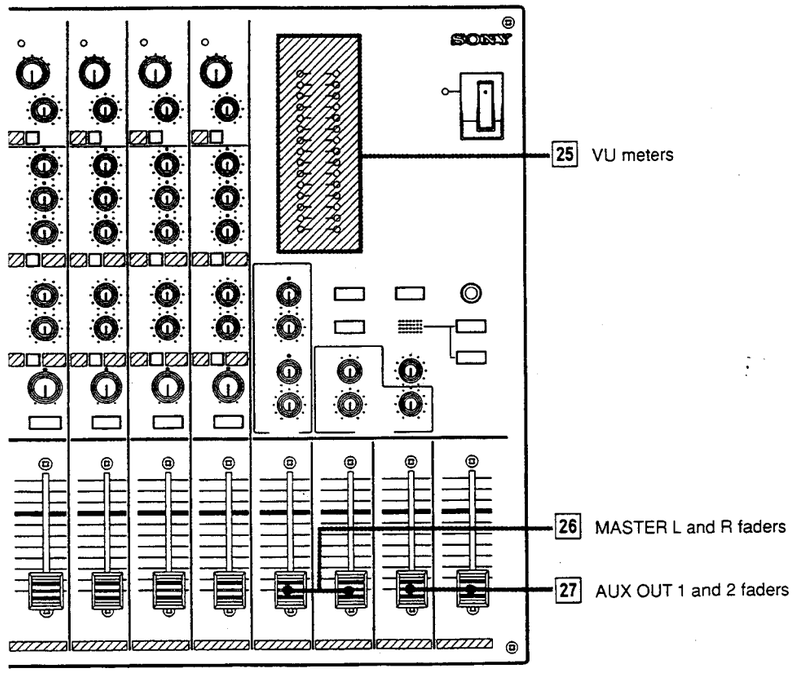
24 ⏚ (ground) terminal
When this unit is connected to audio equipment such as a record player, which requires ground connection to reduce hum or other undesirable noise, connect its ground wire to this terminal.

Pin assignment of XLR-3-31 and XLR-3-32 type connectors



1-3-2. Output Section

Control Panel

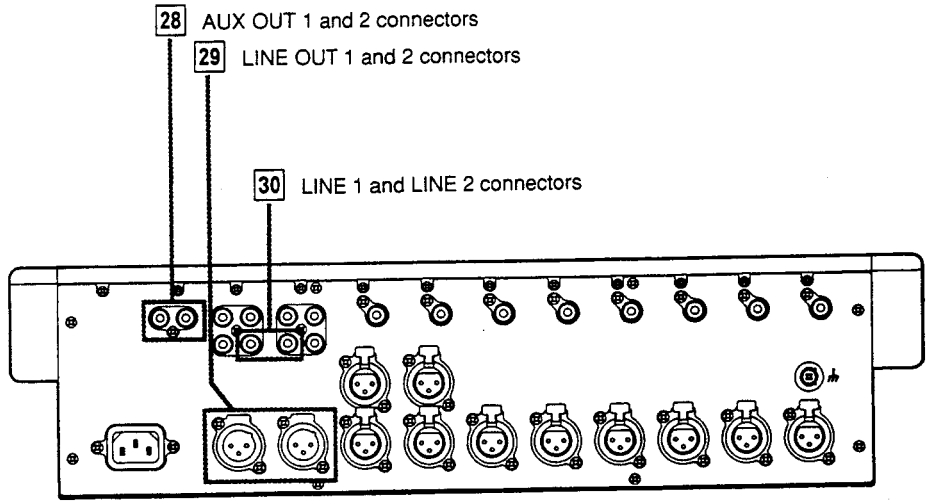


25 VU meters
Used to indicate the output levels of the L and R channels respectively. The EXT MONITOR button 31 and MONITOR SELECT switch 40 are used to select the signal, the level of which is indicated on the meter.

26 MASTER L and R faders
Used to adjust the signal levels of the L and R channels respectively. The MASTER L fader adjusts the levels of the signals output from the LINE OUT 1 29 and LINE 1 30 connectors; the MASTER R fader adjusts the levels of the signals output from the LINE OUT 2 and LINE 2 connectors. A thick line at "7" on the level indication indicates the reference level. The gain margin from the reference level to the level of the maximum setting is 10 dB.

27 AUX OUT (auxiliary output) 1 and 2 faders
Used to adjust the levels of the signals output from the AUX OUT 1 and AUX OUT 2 connectors 28 respectively. A thick line at "7" on the level indication indicates the reference level. The gain margin from the reference level to the level of the maximum setting is 10 dB.

Connector Panel



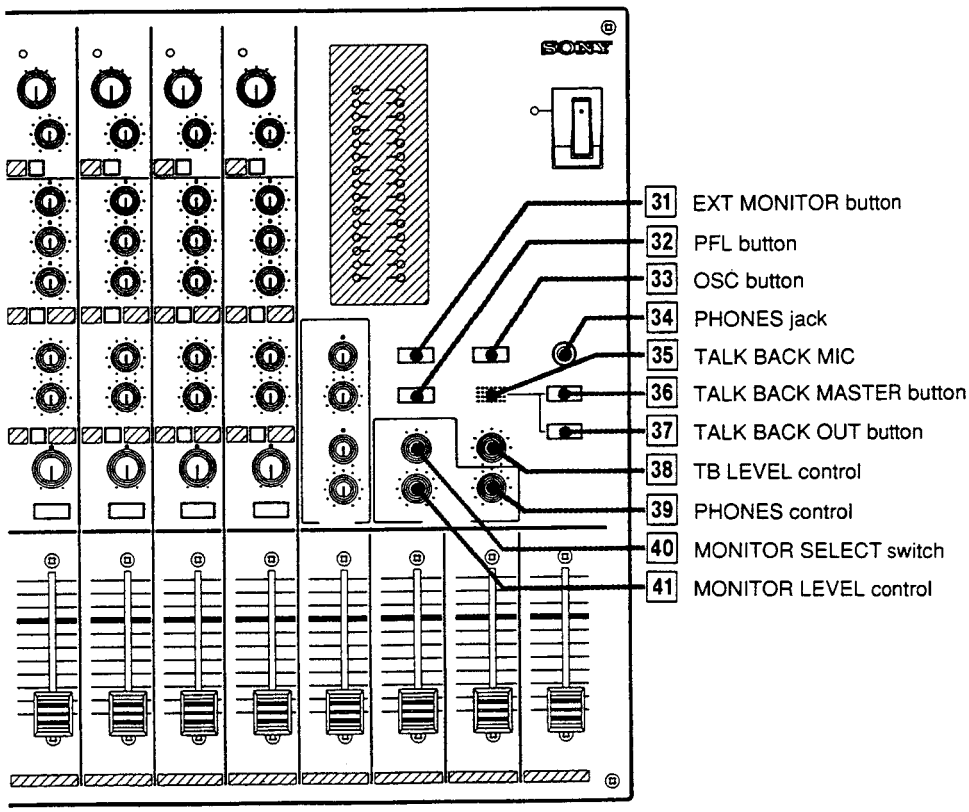
28 AUX OUT (auxiliary output) 1 and 2 connectors (phono jacks)
Each connector outputs the mixed monaural output signals independent of the line outputs, LINE OUT 1 and 2 connectors, and LINE 1 and LINE 2 connectors. An echo machine or a power amplifier to drive a fold-back speaker may be connected.

29 LINE OUT (output) 1 and 2 connectors (equivalent to XLR-3-32)
These connectors output the mixed line signals (balanced). The levels of the signals fed from the LINE OUT 1 and 2 connectors are adjusted using the MASTER L and R faders respectively.

30 LINE 1 and LINE 2 connectors (phono jacks)
These connectors output the same signals (unbalanced, however) as those output from the LINE OUT 1 and 2 connectors.

1-3-3. Monitor Section

Control Panel



31 EXT (external) MONITOR button
Used to monitor the signals connected to the MONI IN connectors 45 through the PHONES jack 34 or MONI OUT 1 and 2 connectors 43. The VU meters indicate the level of the signal input to the MONI IN connectors. This button has priority over the MONITOR SELECT switch 40.

32 PFL (speaker pre-fader listening) button
Used to feed the original input signal corresponding to the depressed PFL button 15 of each channel to the MONI OUT connectors 43. When the output signal from the MONI OUT connector is monitored with a speaker, the PFL signal is also monitored with the speaker.

33 OSC (oscillator) button
When the button is depressed, a 1 kHz sine-wave test signal at a reference level is output from the LINE OUT connectors 29 and the LINE connectors 30. The signal level can be adjusted with the MASTER faders 26.

34 PHONES jack (stereo phone jack)
Accepts headphones for monitoring.

35 TALK BACK MIC (built-in microphone)
Used to send messages from a mixing operator through the output connectors selected with the TALK BACK MASTER button 36 and the TALK BACK OUT button 37.

36 TALK BACK MASTER button
Used to feed the signal from the built-in microphone to the LINE OUT 29 and LINE 30 connectors.
The output to the MONI OUT connectors 43 is automatically muted.

37 TALK BACK OUT button
Used to feed the signal from the built-in microphone to the TB connector 44. The output to the MONI OUT connectors 43 is automatically muted.

38 TB (talk-back) LEVEL control
Used to adjust the built-in microphone sound level.

39 PHONES control
Used to adjust the level of the signal output from the PHONES jack 34.

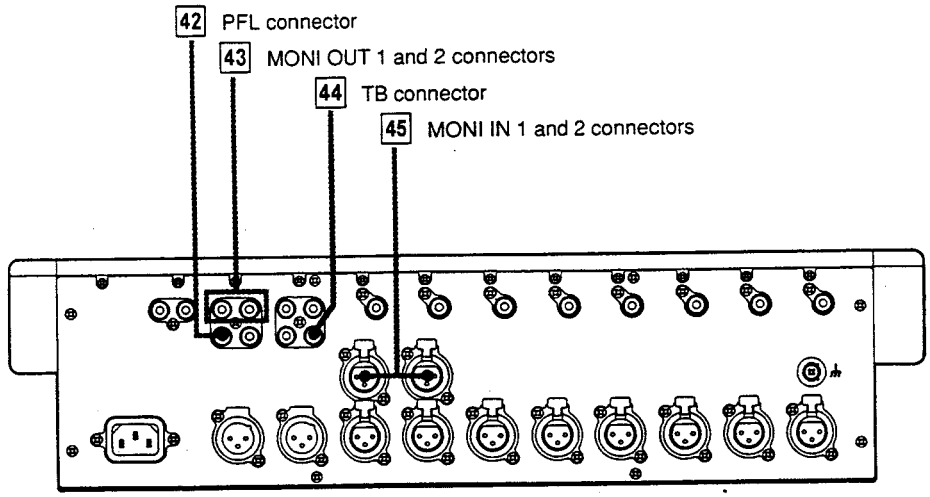
40 MONITOR SELECT switch
Used to select the signal to be monitored through the PHONES jack 34 and MONI OUT connectors 43.
The level of the signal selected by this switch is shown on the VU meter.
MASTER: Line outputs
AUX 1: Auxiliary 1 output
AUX 2: Auxiliary 2 output
When the PFL button 15 of each channel or the EXT MONITOR button 31 is depressed, the pre-fader signal or the signal connected to the MONI IN connectors 45 is selected independent of the setting of this switch.

Note

To output the signal selected by the PFL button 15 from the MONI OUT connectors 43, depress the external speaker PFL button 32 in advance.

41 MONITOR LEVEL control
Used to adjust the output level of the MONI OUT connectors 43.

Connector Panel



42 PFL (pre-fader listening) connector (phono jack)
While the PFL button 15 of each channel is depressed, the pre-fader signal is output independent of the setting of the external speaker PFL button 32.

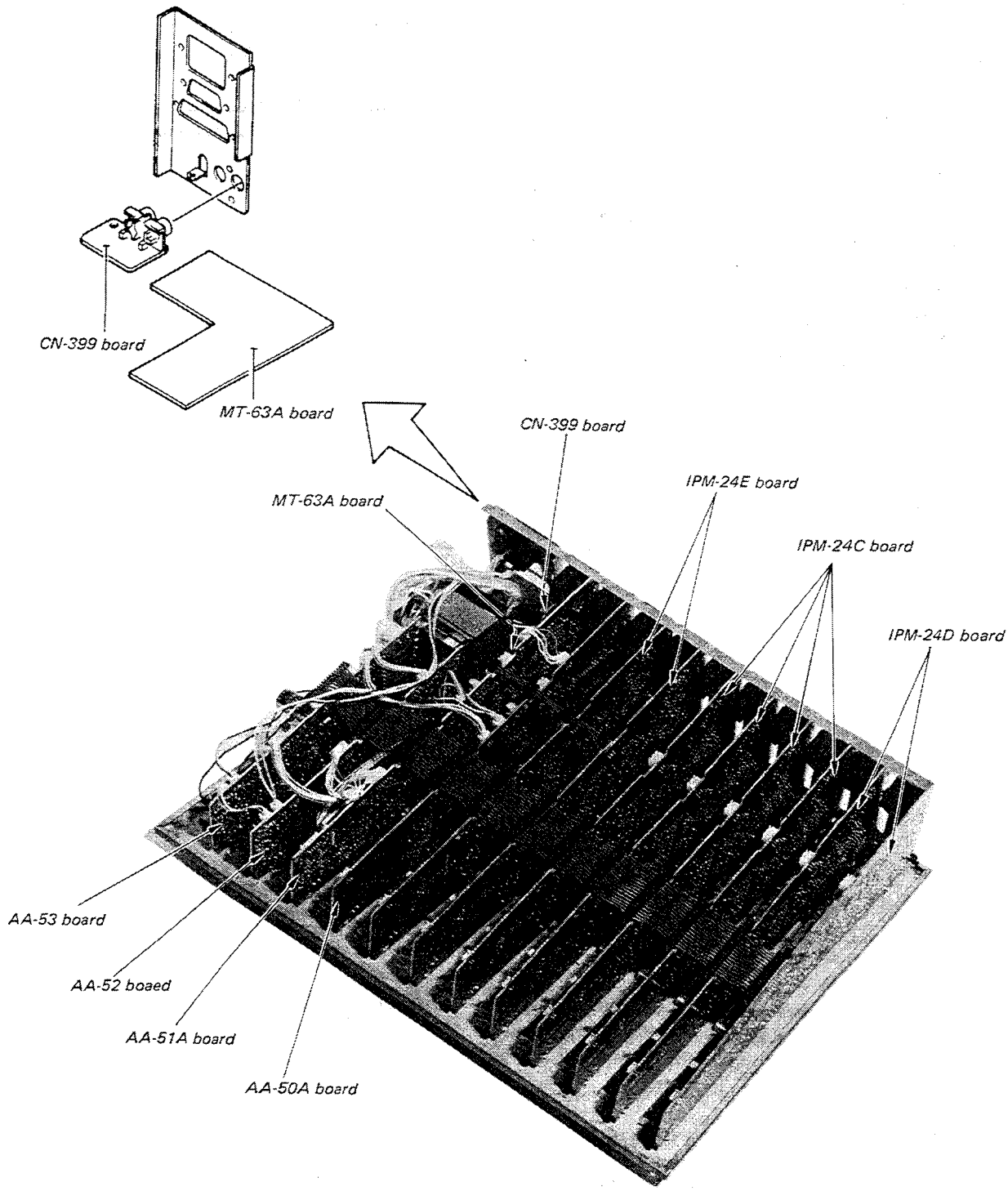
43 MONI OUT (monitor output) 1 and 2 connectors (phono jacks)
Used to connect a power amplifier to drive monitor speakers.

44 TB (talk-back) connector (phono jack)
While the TALK BACK OUT button 37 is depressed, the signal from the built-in microphone is fed to this connector. An amplifier to drive a talk-back speaker may be connected here.

45 MONI IN (monitor input) 1 and 2 connectors (equivalent to XLR-3-31)
Used to monitor external signals. The signals input to these connectors are directly sent to the MONI OUT connectors 43. Therefore the signals on the air or those played back on a VTR, etc. can be monitored using the monitoring system of this unit when they are connected to these connectors.

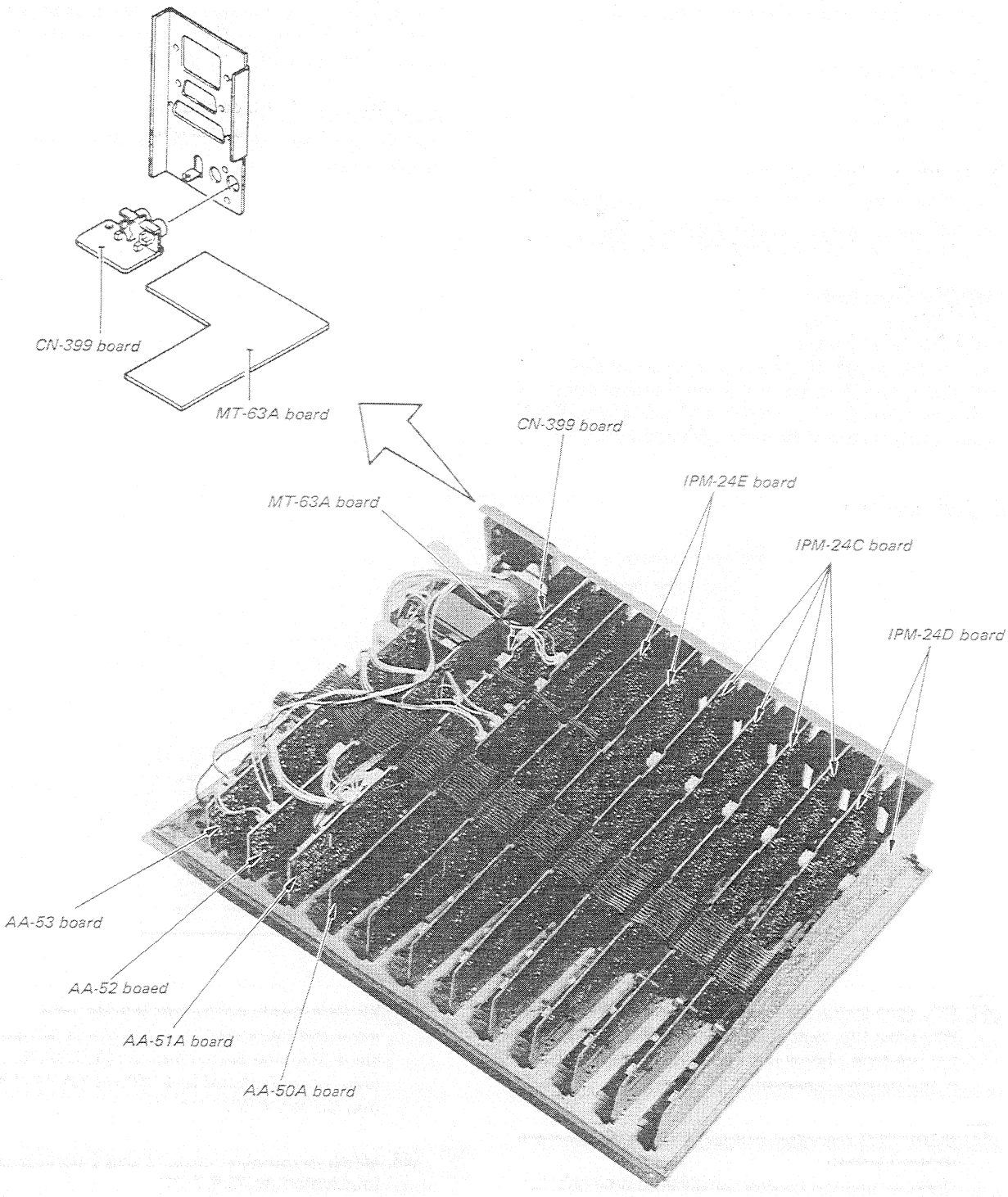
SECTION 2
SERVICE INFORMATION

2-1. BOARDS LOCATION



SECTION 2
SERVICE INFORMATION

2-1. BOARDS LOCATION

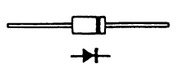


SECTION A
SEMICONDUCTOR PIN ASSIGNMENTS

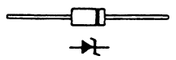
The chart in this section may sometimes show diodes, transistors, and ICs that are not interchangeable. When replacing a component, be sure to refer to the parts list.

The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

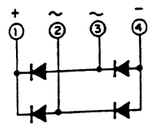
1SS119



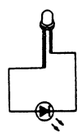
RD??EB?



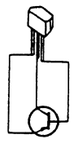
S1VB20



TLG124A
TLR124

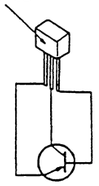


2SA1048

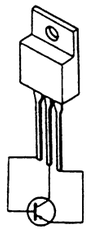


TYPE NO. PRINTED

2SA1175



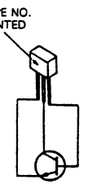
2SB1274SA



2SC1815
2SD786

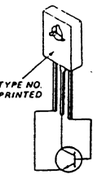
TYPE NO. PRINTED

2SC2785
2SD1020

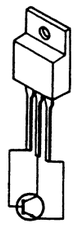


TYPE NO. PRINTED

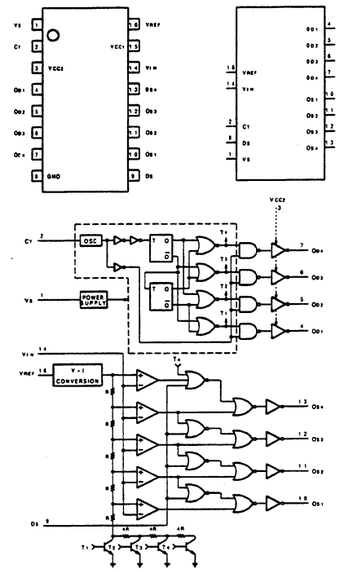
2SD809



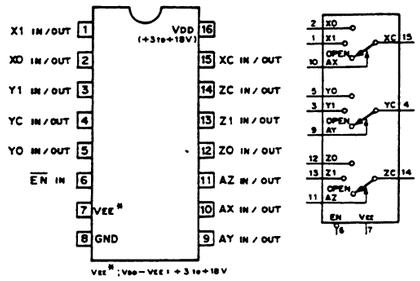
2SD1913SA



IR2E03 (SHARP)
LED LEVEL METER DRIVER
TOP VIEW



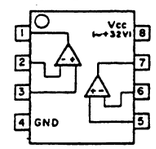
MC14053BCP (MOTOROLA)
C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER
-TOP VIEW-



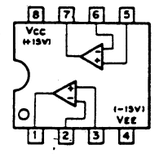
CONT. INPUTS		ON
EN	A (X,Y,Z)	CHANNEL
0	0	0
0	1	1
1	X	OPEN

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE.

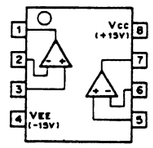
RC4556D (RAYTHEON)
OPERATIONAL AMPLIFIER
- TOP VIEW -



RC4558P (TI)
OPERATIONAL AMPLIFIER
-TOP VIEW-



RC4560D (RAYTHEON)
OPERATIONAL AMPLIFIER
-TOP VIEW-

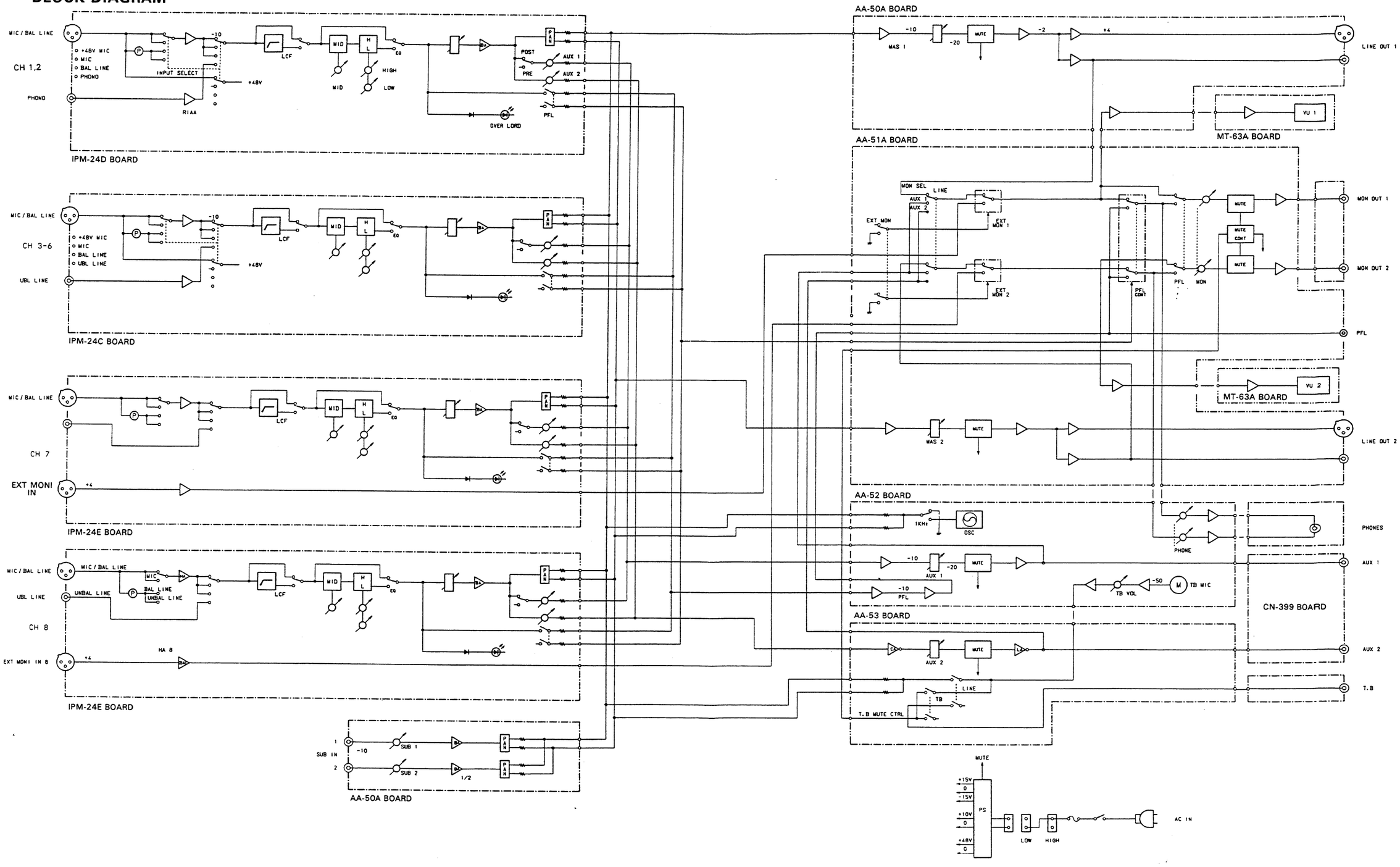


SECTION B

BLOCK, LEVEL, SCHEMATIC AND CIRCUIT BOARD DIAGRAM

B-1. BLOCK AND LEVEL DIAGRAM

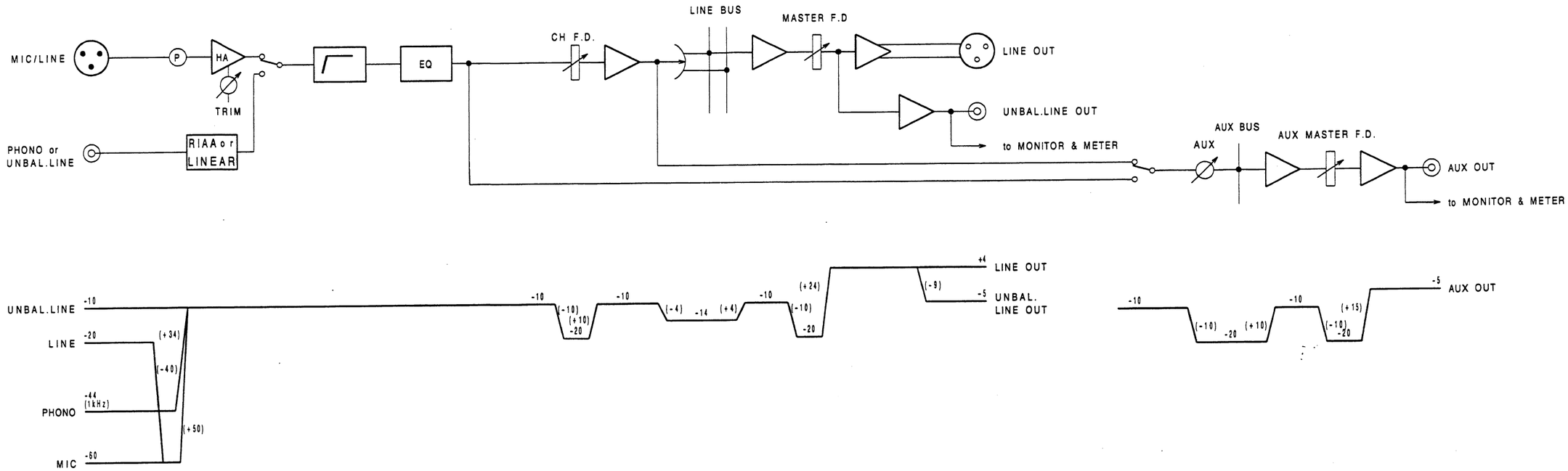
BLOCK DIAGRAM

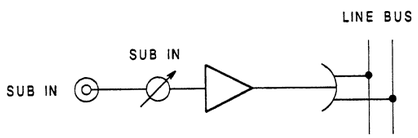


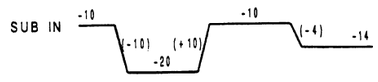
B-1

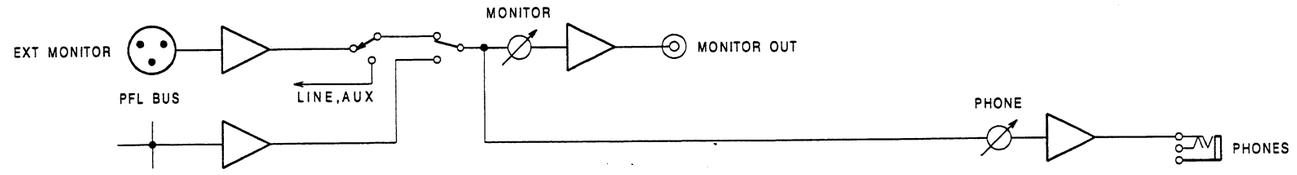
B-2

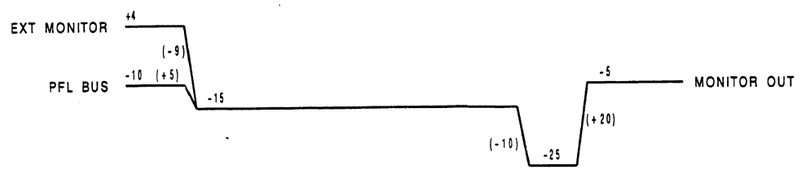
LEVEL DIAGRAM







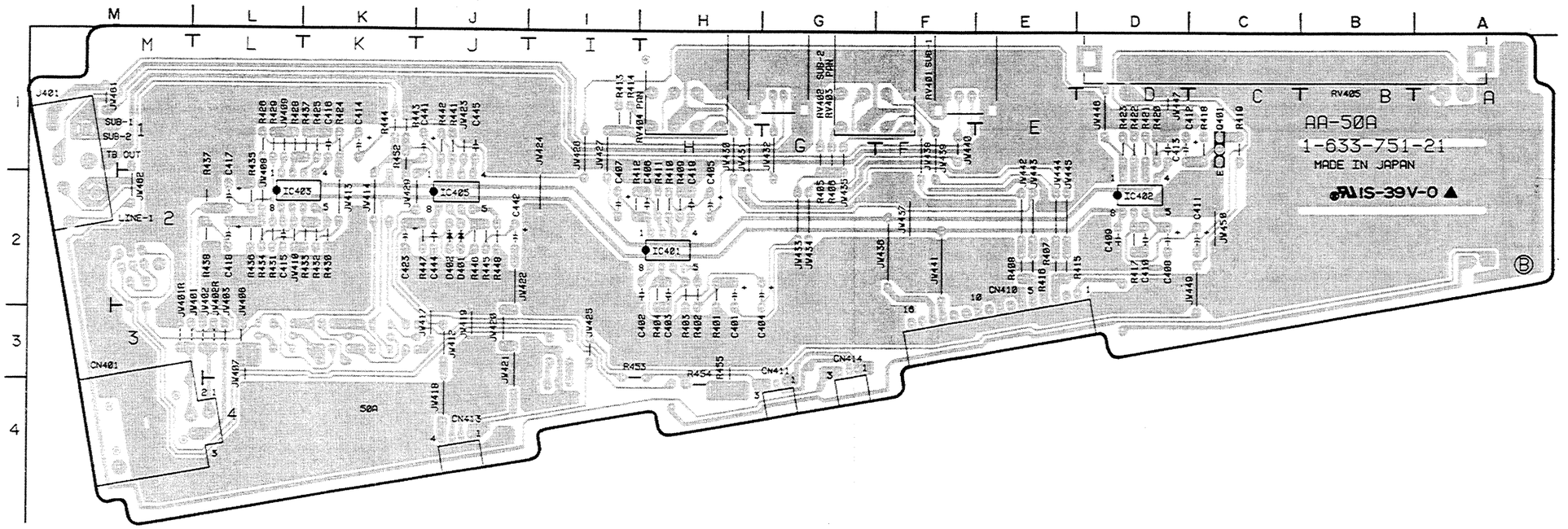




B-2. SCHEMATIC AND CIRCUIT BOARD DIAGRAMS

AA-50A BOARD (1-633-751-21)

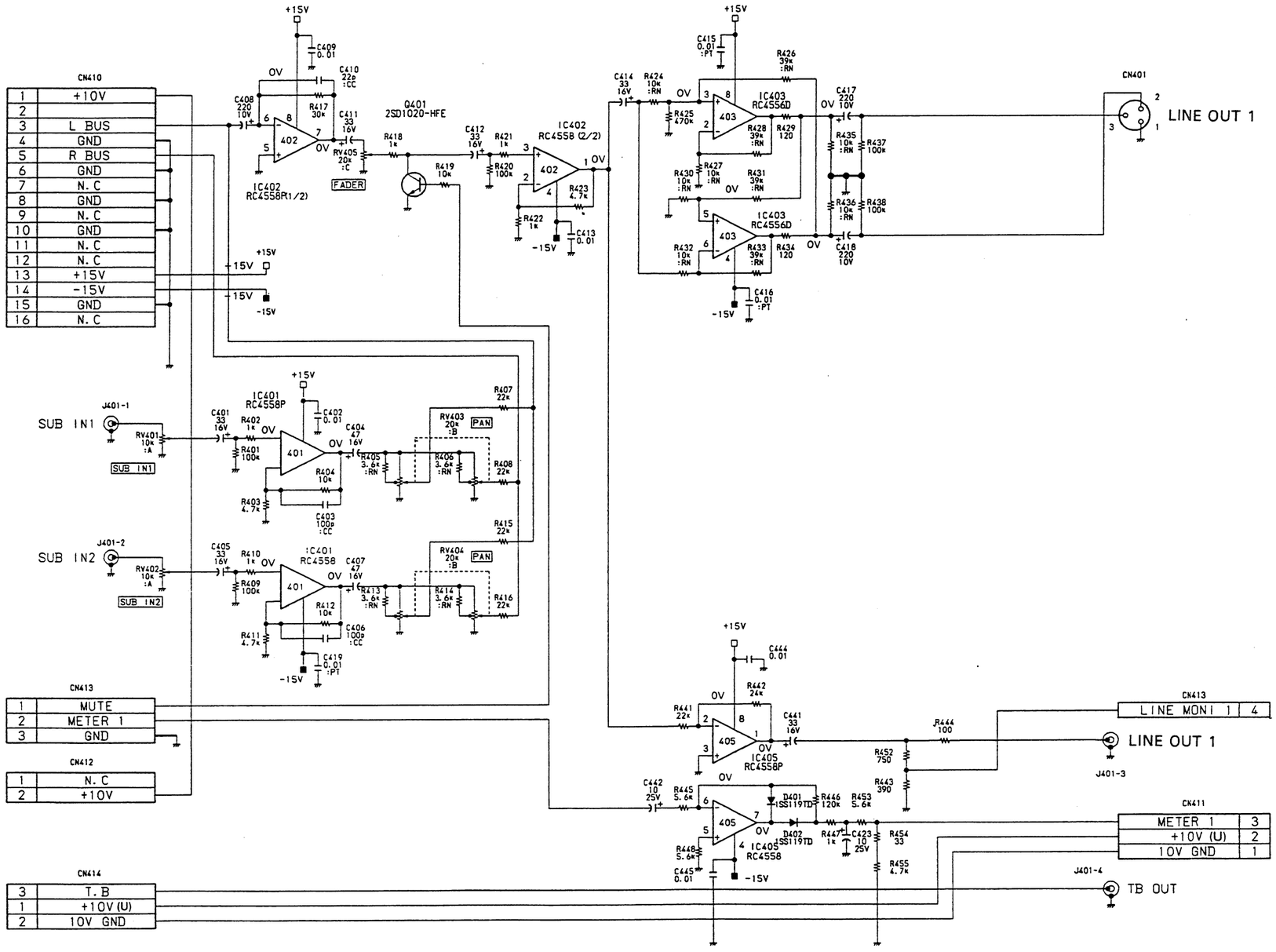
Solder Side



SOLDER SIDE PATTERN 1-633-752-21

CN401	M-4
CN410	E-3
CN411	G-4
CN413	J-4
CN414	G-4
D401	J-2
D402	J-2
IC401	H-2
IC402	D-2
IC403	L-2
IC405	J-2
J401	M-1
RV401	F-1
RV402	G-1
RV403	G-1
RV404	H-1
RV405	C-1

AA-50A BOARD

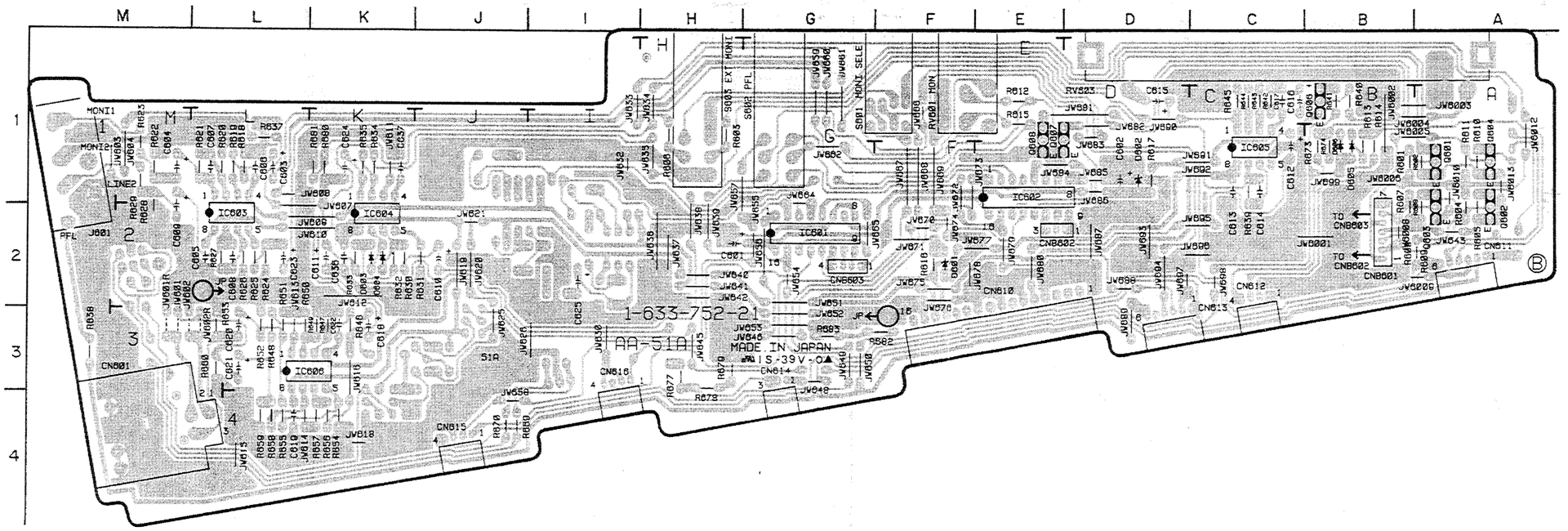


NOTES:
- The DC voltage shows the value without signal.
- Voltages are measured with a VOM (50kΩ/V).

AA-50A BOARD

BOARD NO.1-633-751-21 & HIGHER
MXP-210

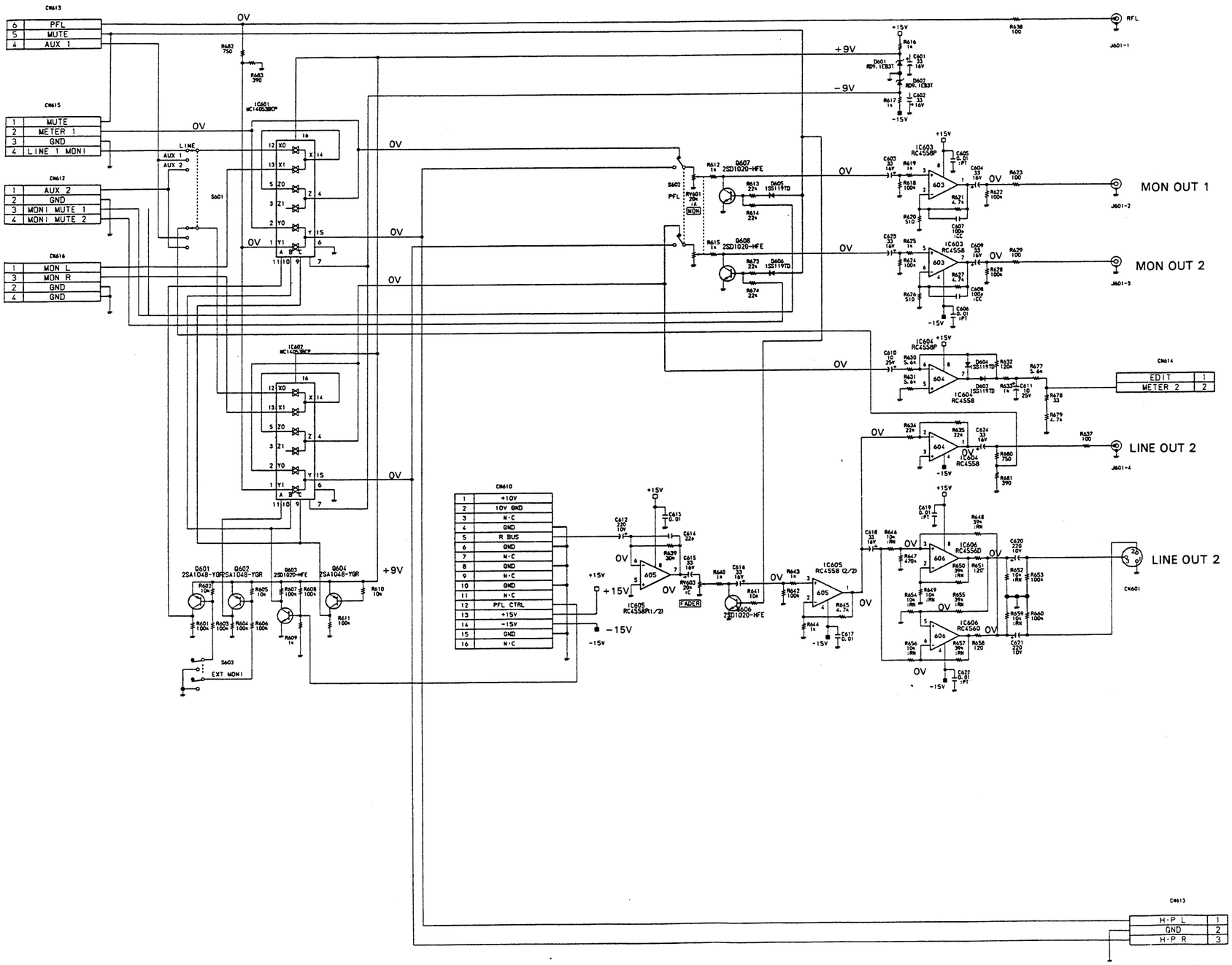
AA-51A BOARD (1-633-752-21)
Solder Side



SOLDER SIDE PATTERN 1-633-752-21

CN601	M-4
CN610	E-3
CN611	A-2
CN612	C-3
CN613	D-3
CN614	G-4
CN615	J-4
CN616	I-4
D601	F-2
D602	D-1
D603	K-2
D604	K-2
D605	B-1
D606	B-1
IC601	G-2
IC602	E-2
IC603	L-2
IC604	K-2
IC605	C-1
J601	M-1
Q601	A-1
Q602	A-2
Q603	A-2
Q604	A-1
Q606	B-1
Q607	E-1
Q608	E-1
RV601	F-1
RV603	C-1
S601	F-1
S602	G-1
S603	H-1

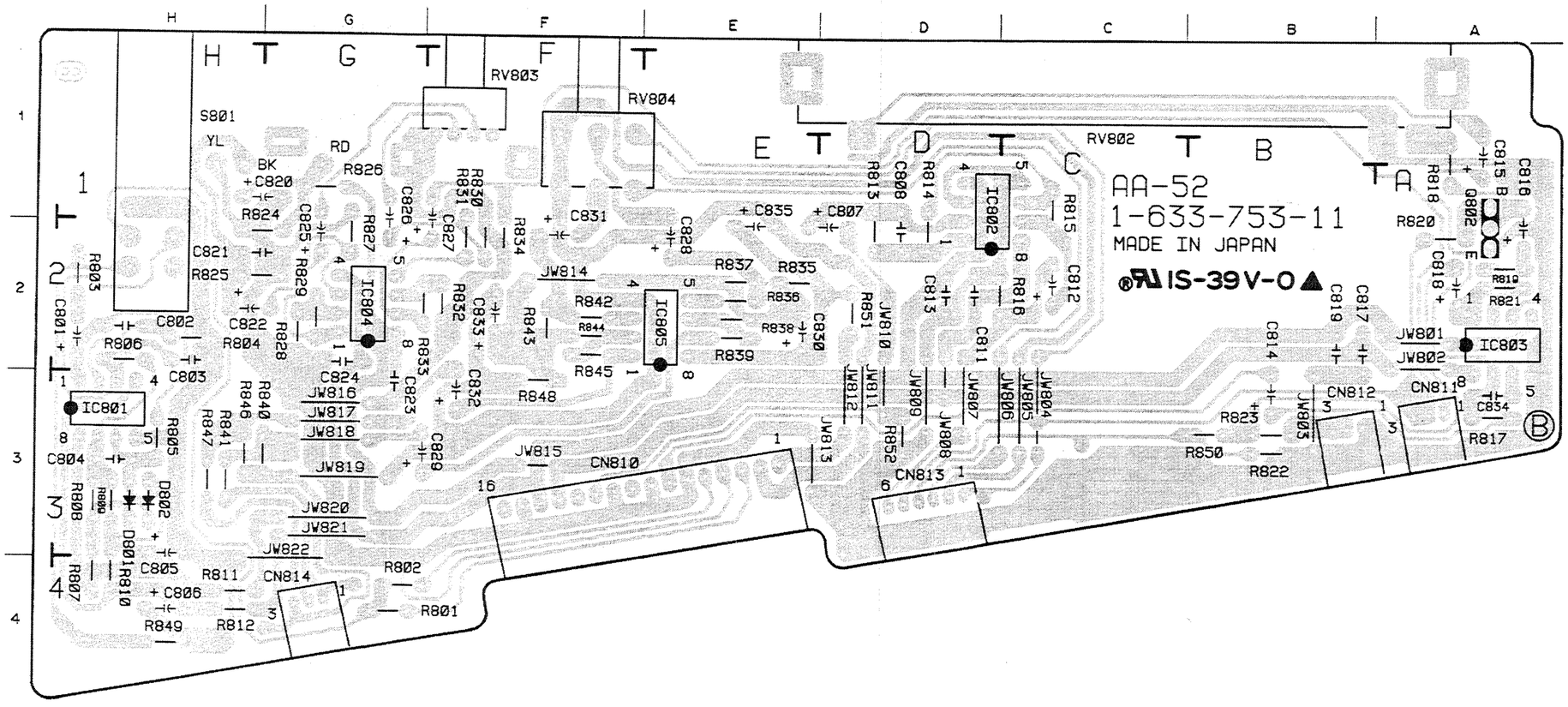
AA-51A BOARD



NOTES:
- The DC voltage shows the value without signal.
- Voltages are measured with a VOM (50kΩ/V).

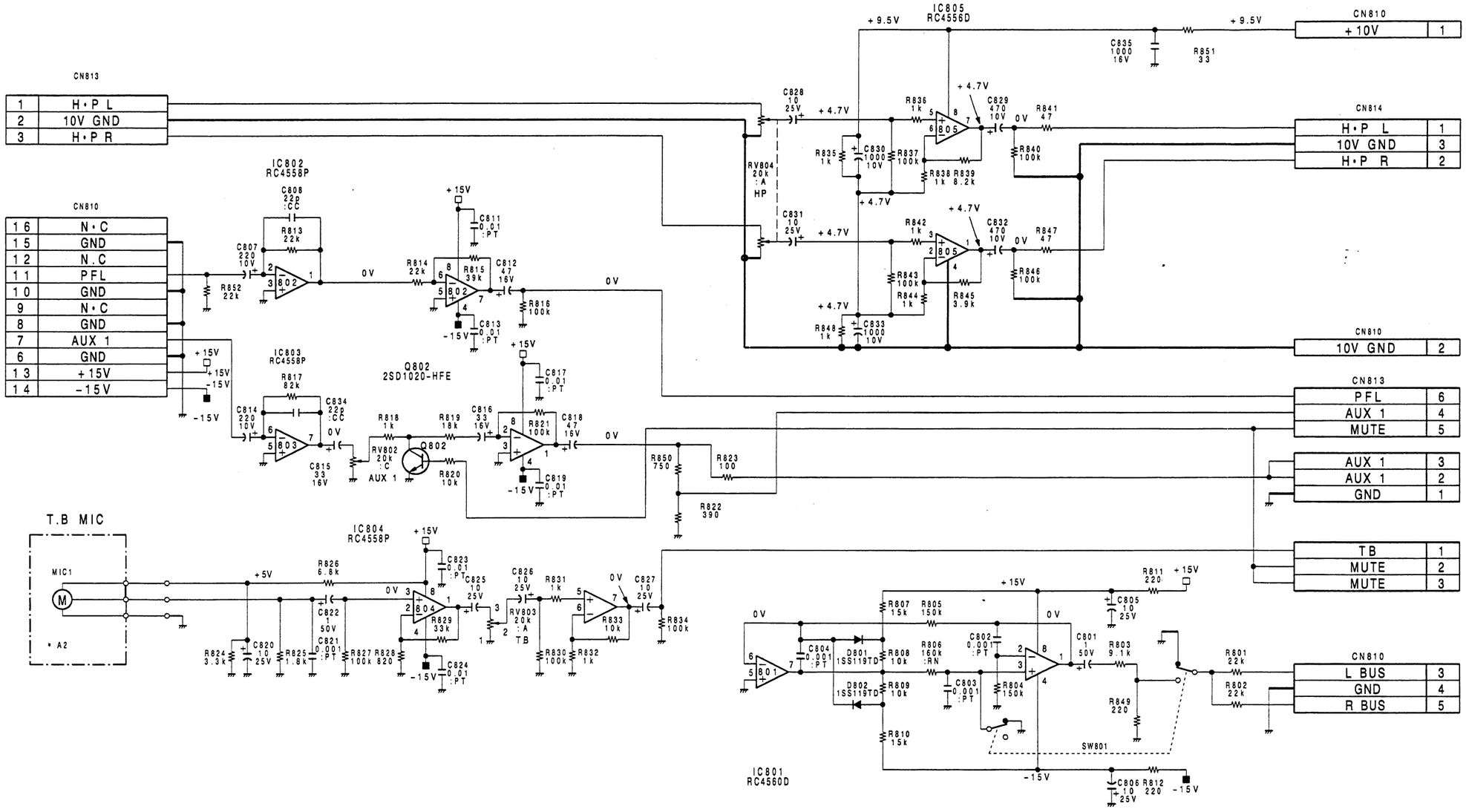
AA-51A BOARD
BOARD NO.1-633-752-21 & HIGHER
MXP-210

AA-52 BOARD (1-633-753-11)
Solder Side



CN810	F-3
CN811	A-3
CN812	B-3
CN813	D-3
CN814	G-4
D801	H-3
D802	H-3
IC801	H-3
IC802	D-1
IC803	A-2
IC804	G-2
IC805	E-2
Q802	A-1
RV802	C-1
RV803	F-1
RV804	F-1
S801	H-1

AA-52 BOARD

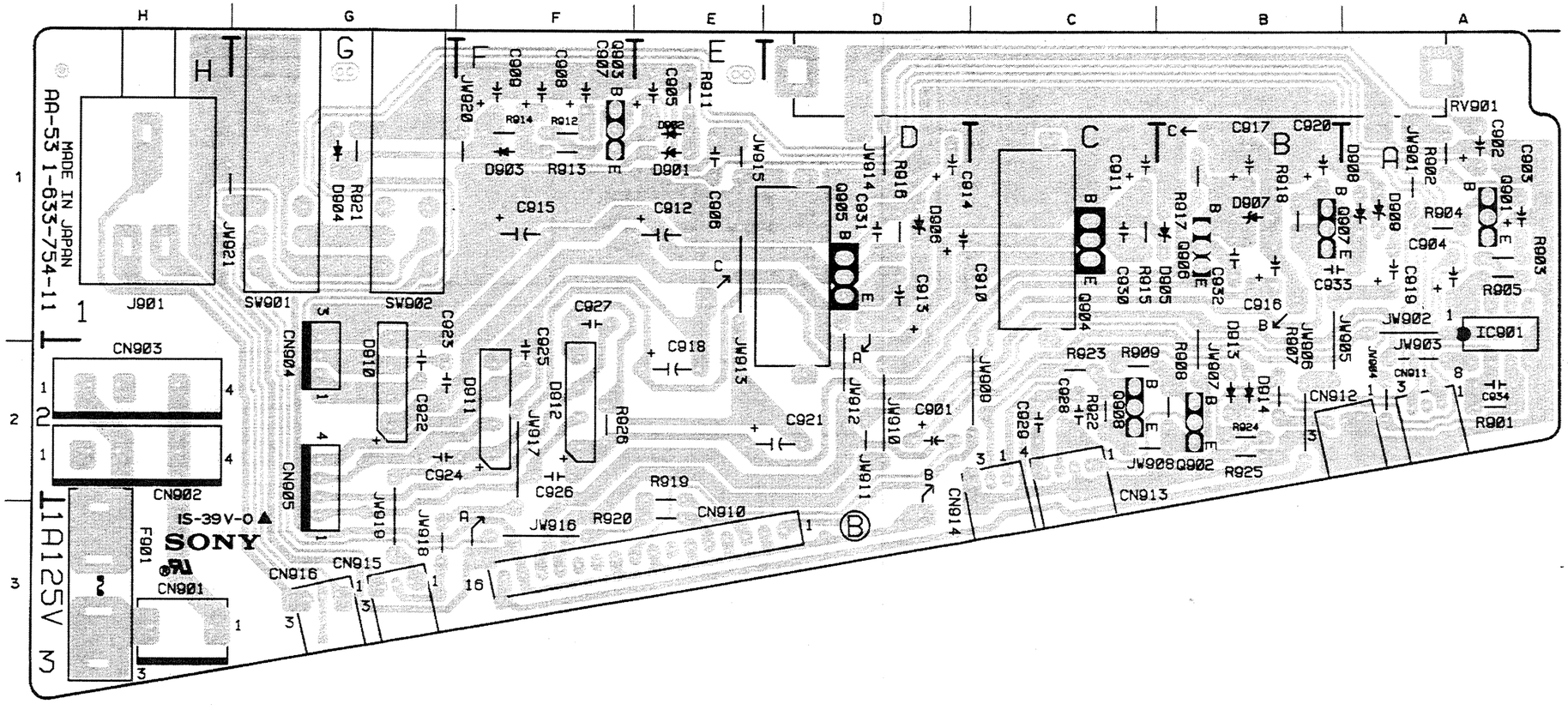


NOTES:
- The DC voltage shows the value without signal.
- Voltages are measured with a VOM (50kΩ/V).

AA-52 BOARD
BOARD NO.1-633-753-11 & HIGHER
MXP-210

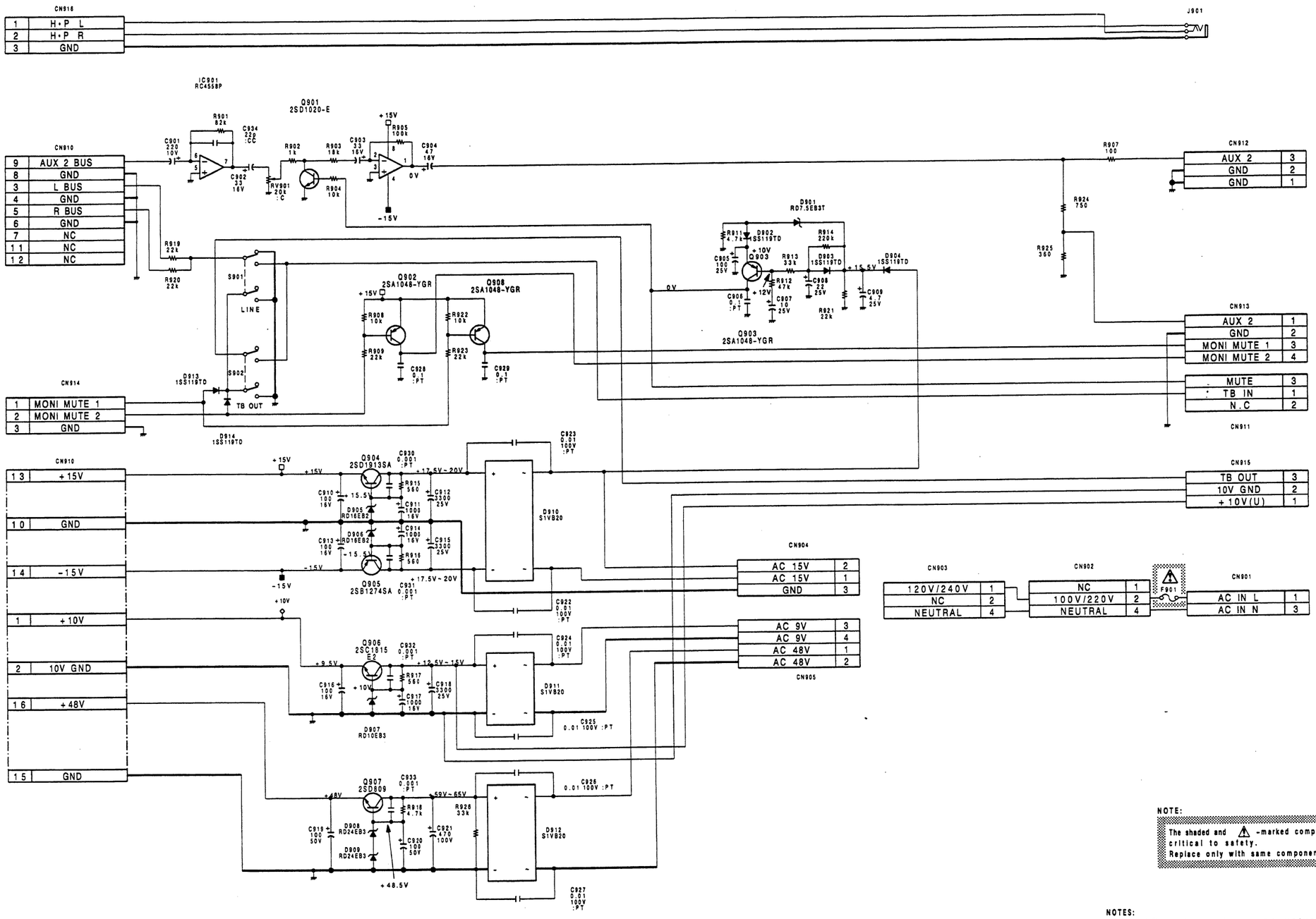
1

AA-53 BOARD (1-633-754-11)
Solder Side



CN901	H-3	S901	G-1
CN902	H-2	S902	G-1
CN903	H-2		
CN904	G-2		
CN905	G-2		
CN910	E-3		
CN911	A-2		
CN912	A-2		
CN913	C-2		
CN914	C-2		
CN915	G-3		
CN916	G-3		
D901	E-1		
D902	E-1		
D903	F-1		
D904	G-1		
D905	B-1		
D906	D-1		
D907	B-1		
D908	A-1		
D909	A-1		
D910	G-2		
D911	F-2		
D912	F-2		
D913	B-2		
D914	B-2		
F901	H-3		
IC901	A-1		
Q901	A-1		
Q902	B-2		
Q903	F-1		
Q904	C-1		
Q905	D-1		
Q906	B-1		
Q907	B-1		
Q908	C-2		
RV901	A-1		

AA-53 BOARD



NOTE:

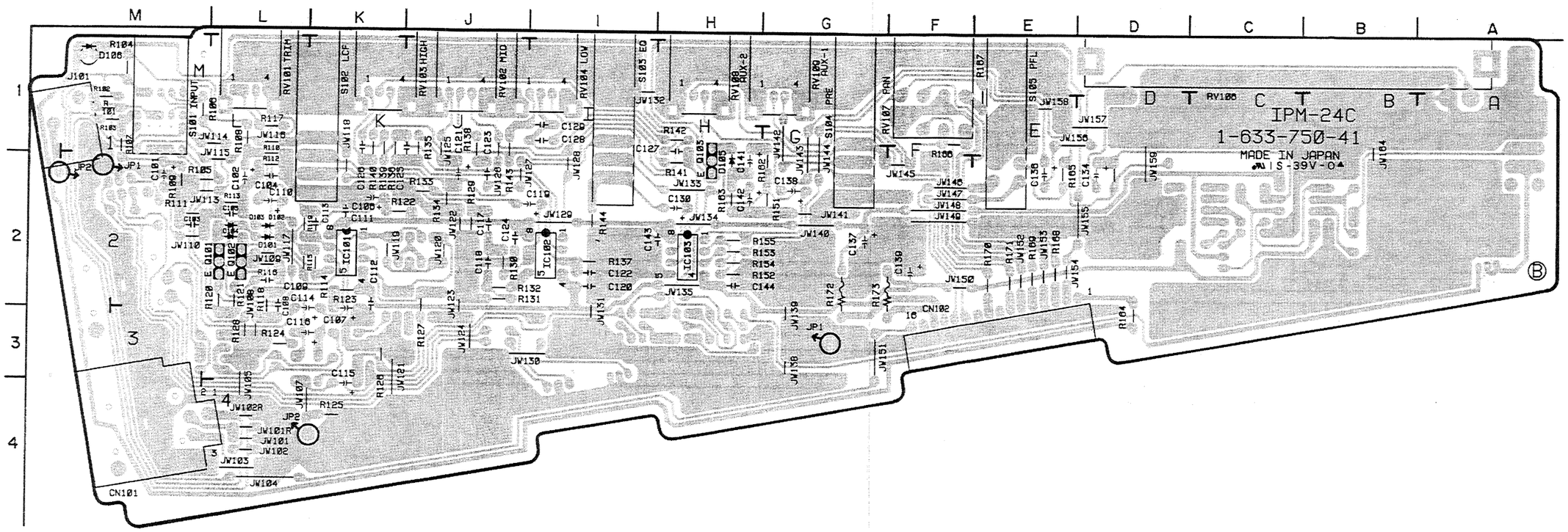
The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.

NOTES:
- The DC voltage shows the value without signal.
- Voltages are measured with a VOM (50kΩ /V).

AA-53 BOARD

BOARD NO.1-633-754-11 & HIGHER
MXP-210

IPM-24C BOARD (1-633-750-41)
Solder Side

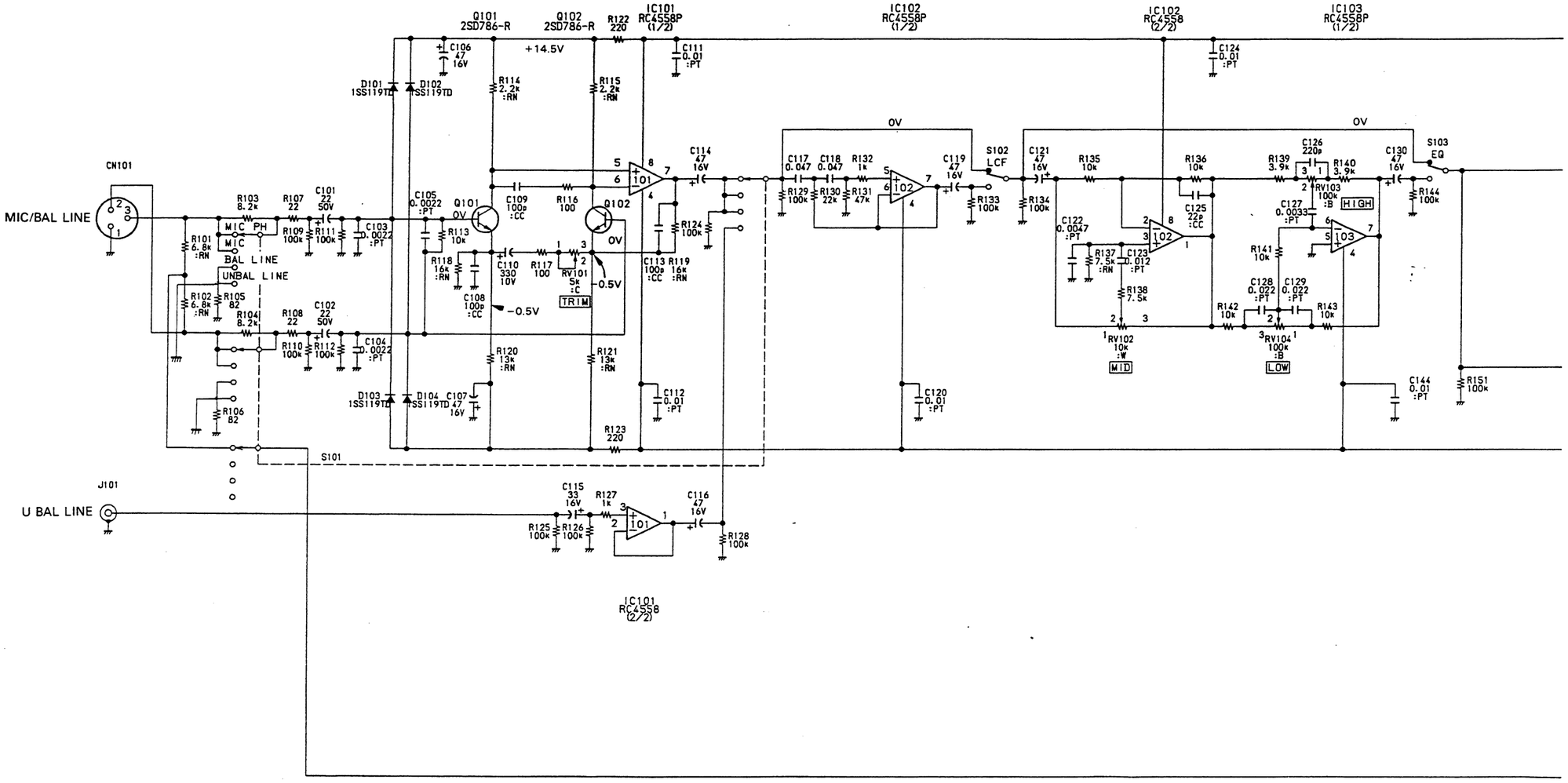


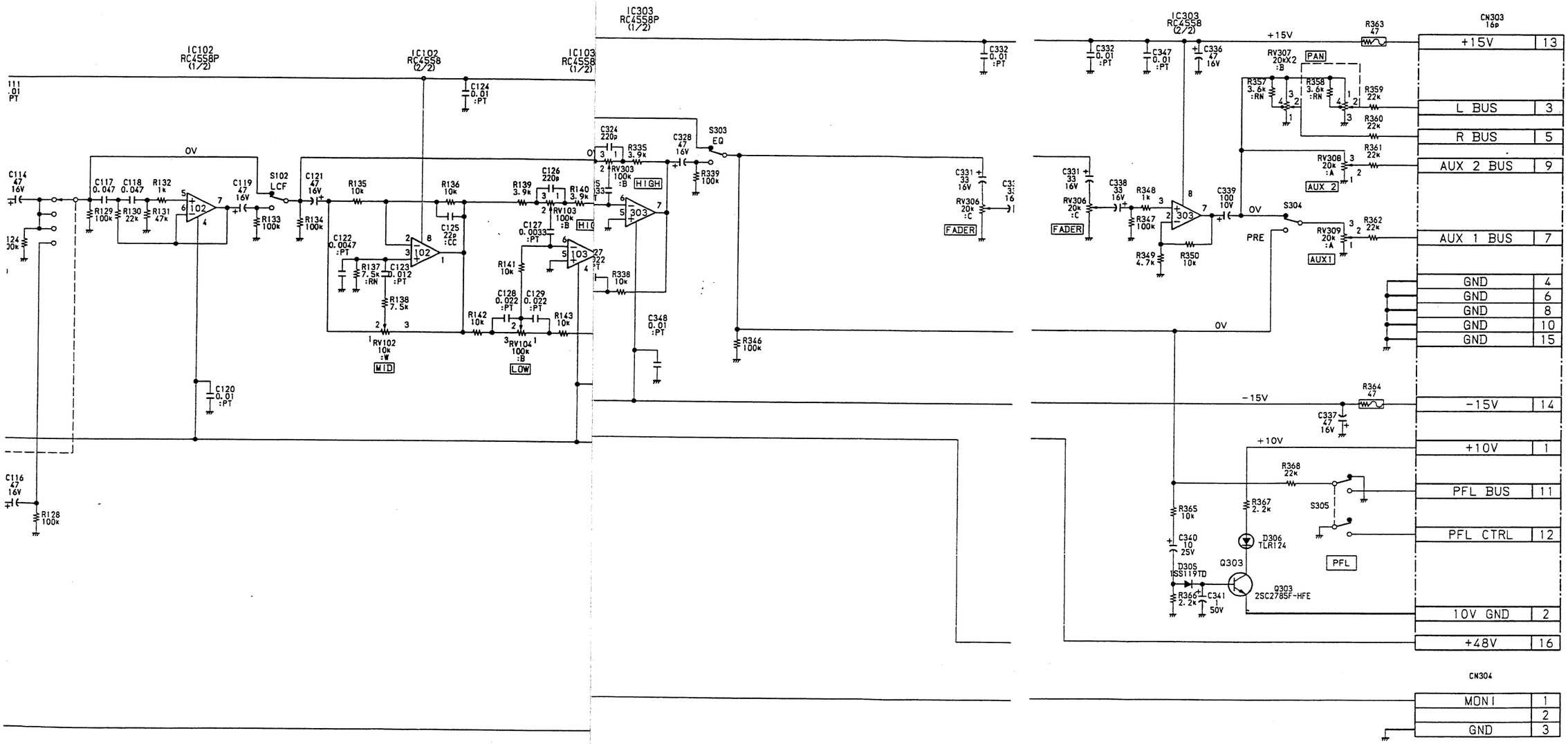
SOLDER SIDE PATTERN 1-633-750-41

CN101	M-4
CN102	E-3
D101	L-2
D102	L-2
D103	L-2
D104	L-2
D105	H-2
D106	M-1
IC101	K-2
IC102	I-2
IC103	H-2
J101	M-1
Q101	L-2
Q102	L-2
Q103	H-2
RV101	L-1
RV102	J-1
RV103	K-1
RV104	I-1
RV106	C-1
RV107	F-1
RV108	H-1
RV109	G-1
S101	M-1
S102	K-1
S103	I-1
S104	G-1
S105	E-1

IPM-24

IPM-24C BOARD



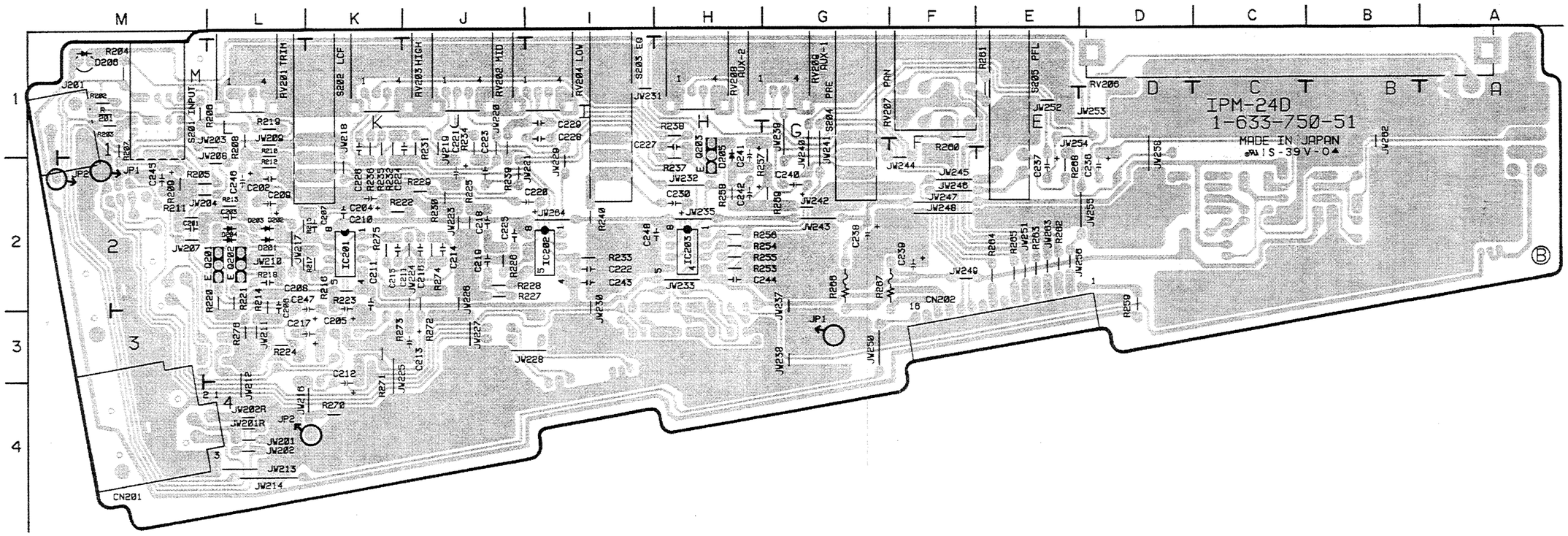


NOTES:
- The DC voltage
- Voltages are me

IPM-

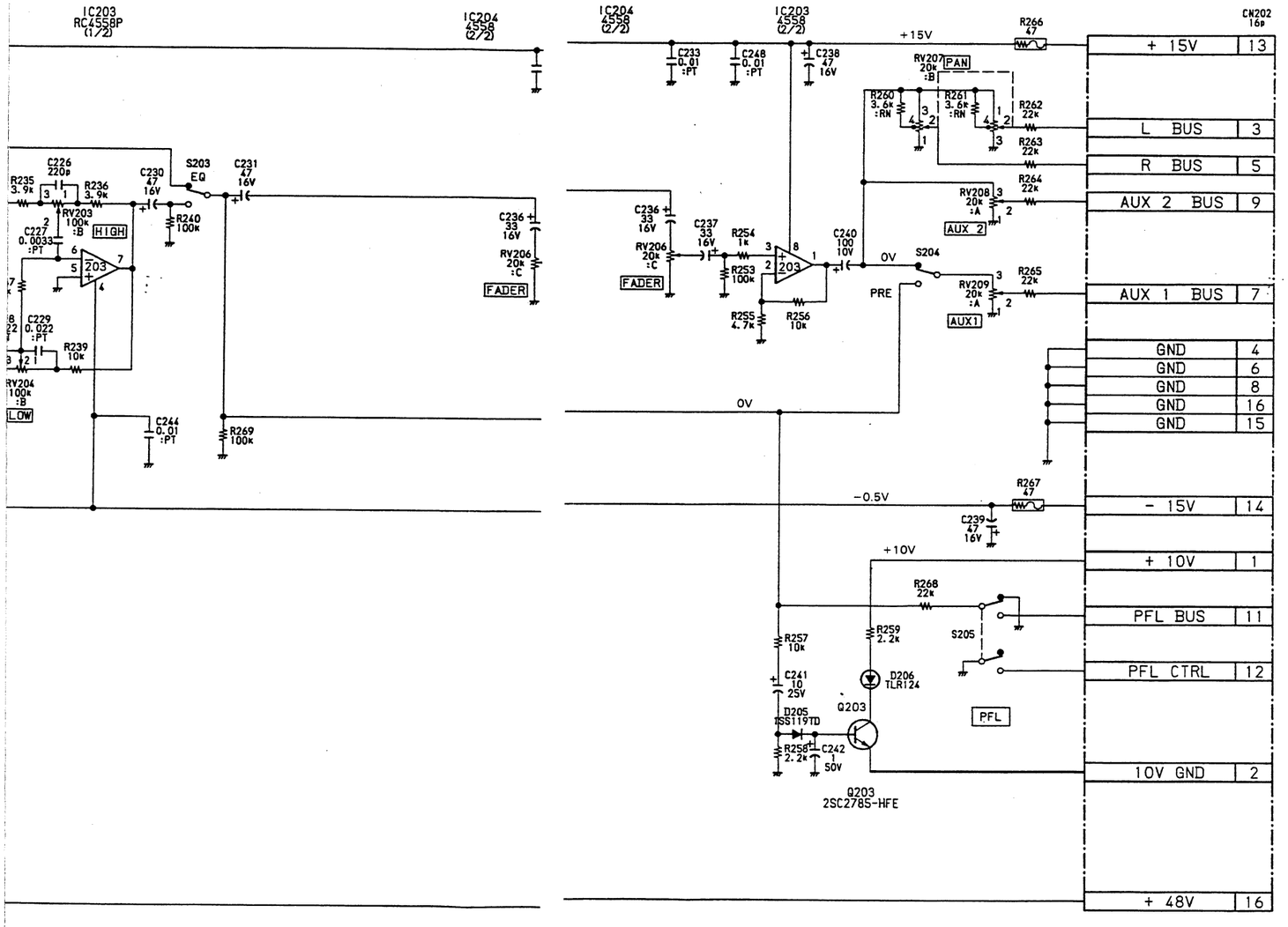
BOARD NO.
MXP-210

IPM-24D BOARD (1-633-750-51)
Solder Side



SOLDER SIDE PATTERN (1-633-750-51)

CN201	M-4
CN202	E-3
D201	L-2
D202	L-2
D203	L-2
D204	L-2
D205	H-2
D206	M-1
IC201	K-2
IC202	I-2
IC203	H-2
J201	M-1
Q201	L-2
Q202	L-2
Q203	H-2
RV201	L-1
RV202	J-1
RV203	K-1
RV204	I-1
RV206	C-1
RV207	F-1
RV208	H-1
RV209	G-1
S201	M-1
S202	K-1
S203	I-1
S204	G-1
S205	E-1

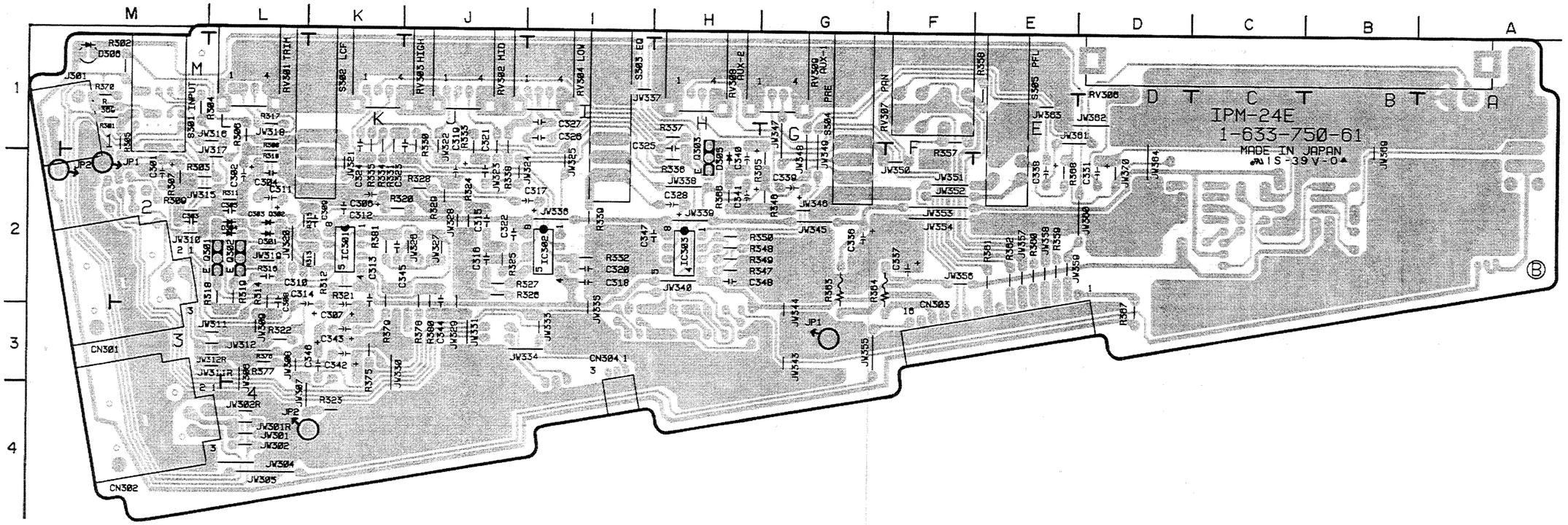


NOTES:
- The DC voltage shows th
- Voltages are measured wi

IPM-24D I

BOARD NO.1-633-750-
MXP-210

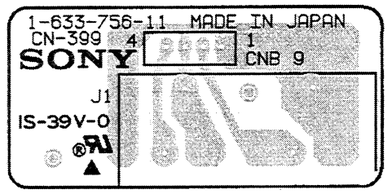
IPM-24E BOARD (1-633-750-61)
Solder Side



CN301	M-2
CN302	M-4
CN303	E-3
CN304	I-4
D301	L-2
D302	L-2
D303	L-2
D304	L-2
D305	H-2
D306	M-1
IC301	K-2
IC302	I-2
IC303	H-2
J301	M-1
Q301	L-2
Q302	L-2
Q303	H-2
RV301	L-1
RV302	J-1
RV303	K-1
RV304	I-1
RV306	C-1
RV307	F-1
RV308	H-1
RV309	G-1
S301	M-1
S302	K-1
S303	I-1
S304	G-1
S305	E-1

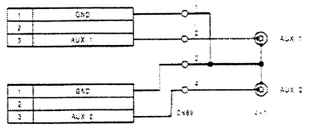
SOLDER SIDE PATTERN 1-633-750-61

CN-399 BOARD (1-633-756-11)
Solder Side



SOLDER SIDE PATTERN 1-633-756-11

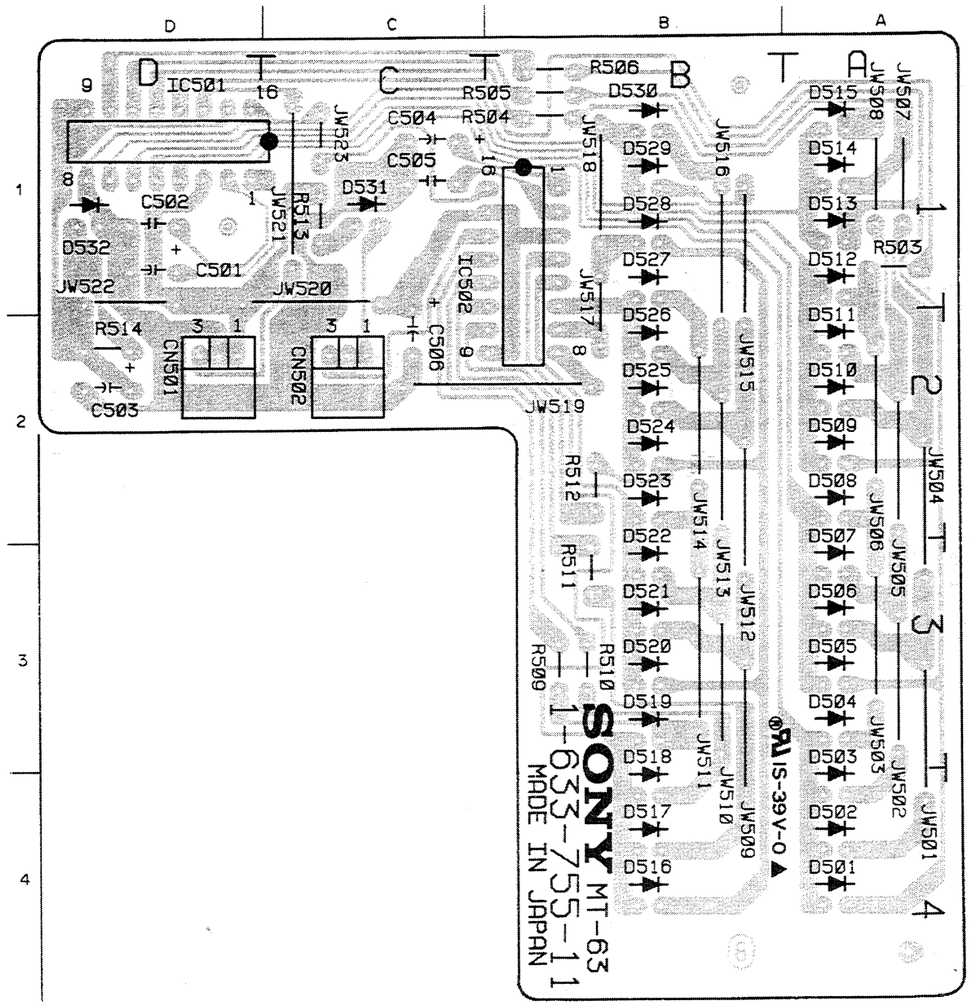
CN-399 BOARD



CN-399 BOARD

BOARD NO.1-633-756-11 & HIGHER
MXP-210

MT-63A BOARD (1-633-755-11)
Solder Side

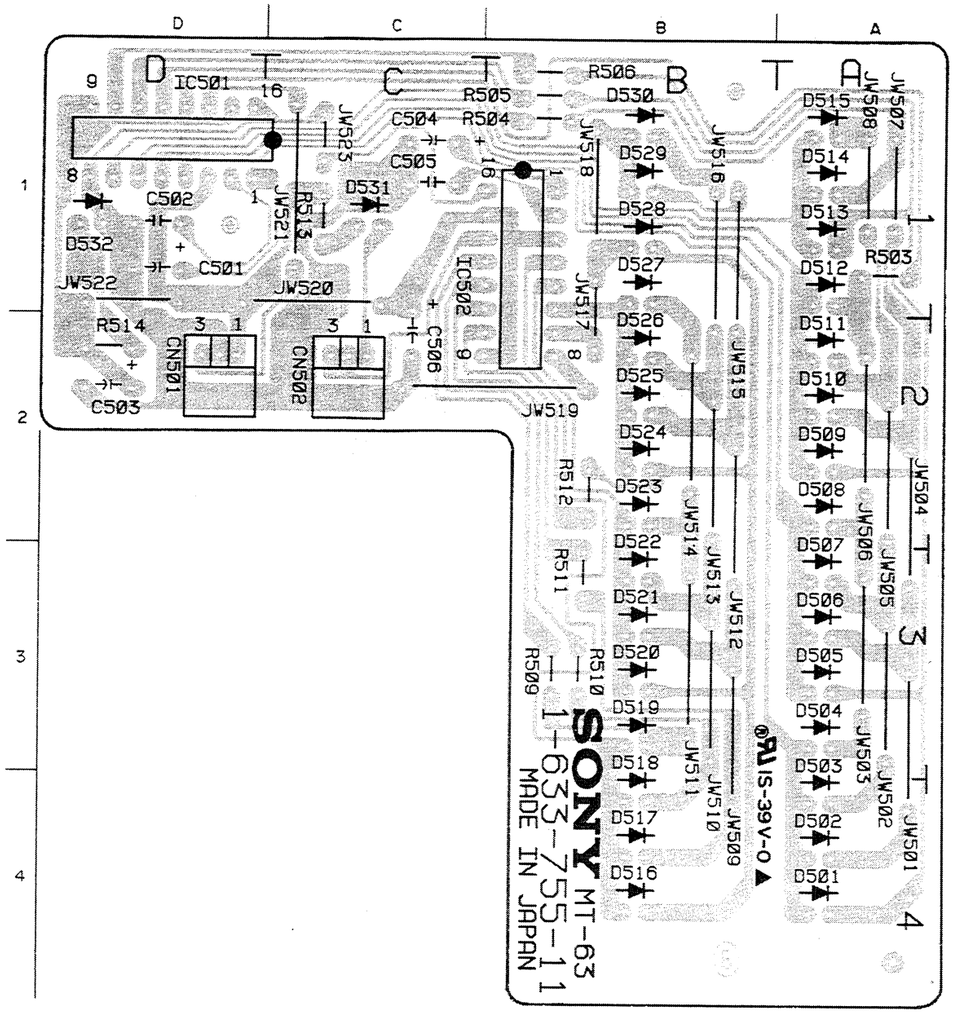


SOLDER SIDE PATTERN 1-633-755-11

CN501	D-2	D506	A-3	D516	B-4	D526	B-2
CN502	C-2	D507	A-3	D517	B-4	D527	B-1
		D508	A-2	D518	B-4	D528	B-1
D501	A-4	D509	A-2	D519	B-3	D529	B-1
D502	A-4	D510	A-2	D520	B-3	D530	B-1
D503	A-4						
D504	A-3	D511	A-2	D521	B-3	D531	C-1
D505	A-3	D512	A-1	D522	B-3	D532	D-1
		D513	A-1	D523	B-2		
		D514	A-1	D524	B-2	IC501	D-1
		D515	A-1	D525	B-2	IC502	B-1

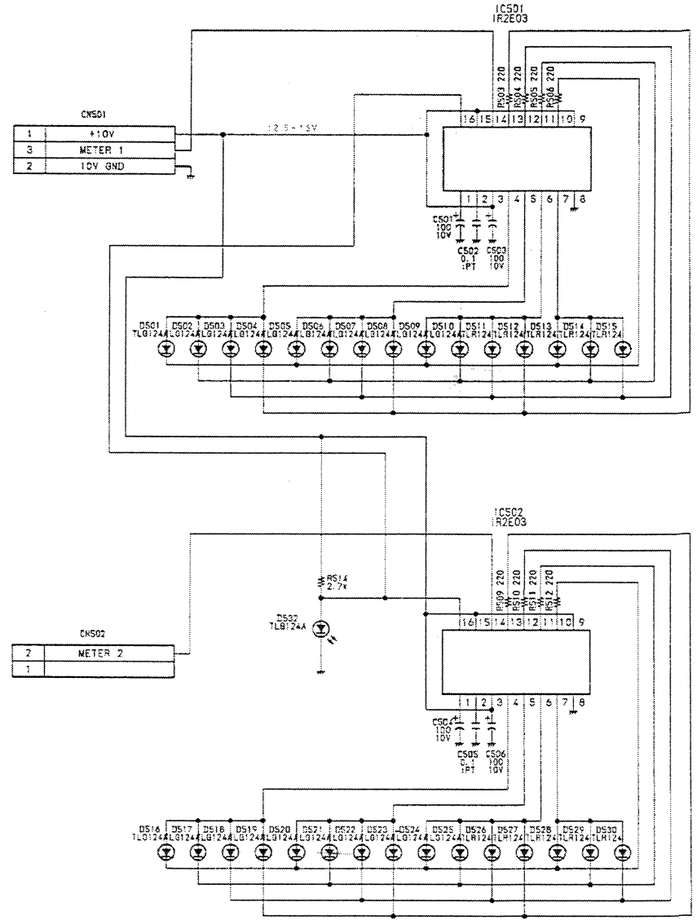
5

MT-63A BOARD (1-633-755-11)
Solder Side



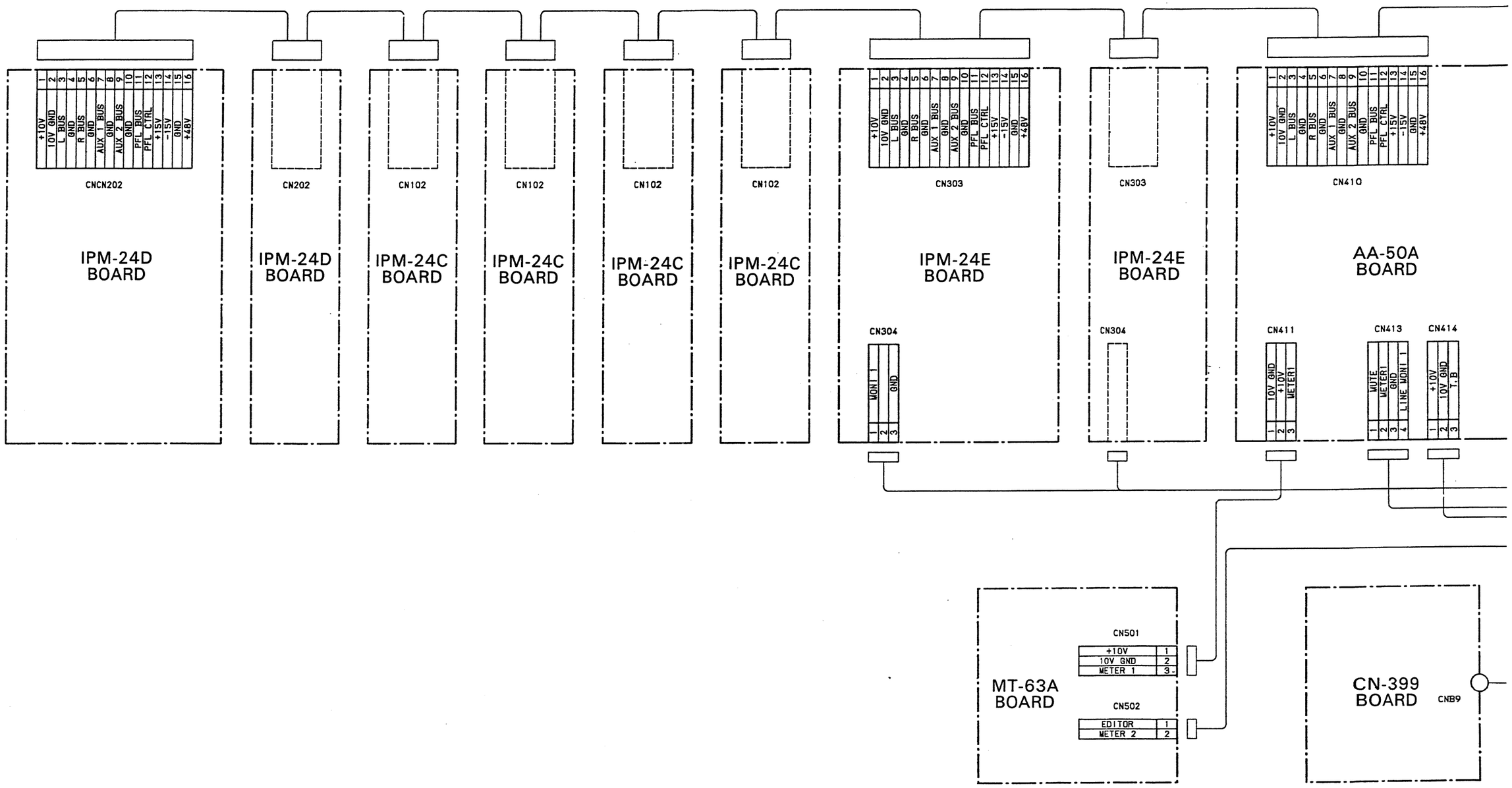
CN501	D-2	D506	A-3	D516	B-4	D526	B-2
CN502	C-2	D507	A-3	D517	B-4	D527	B-1
		D508	A-2	D518	B-4	D528	B-1
D501	A-4	D509	A-2	D519	B-3	D529	B-1
D502	A-4	D510	A-2	D520	B-3	D530	B-1
D503	A-4						
D504	A-3	D511	A-2	D521	B-3	D531	C-1
D505	A-3	D512	A-1	D522	B-3	D532	D-1
		D513	A-1	D523	B-2		
		D514	A-1	D524	B-2	IC501	D-1
		D515	A-1	D525	B-2	IC502	B-1

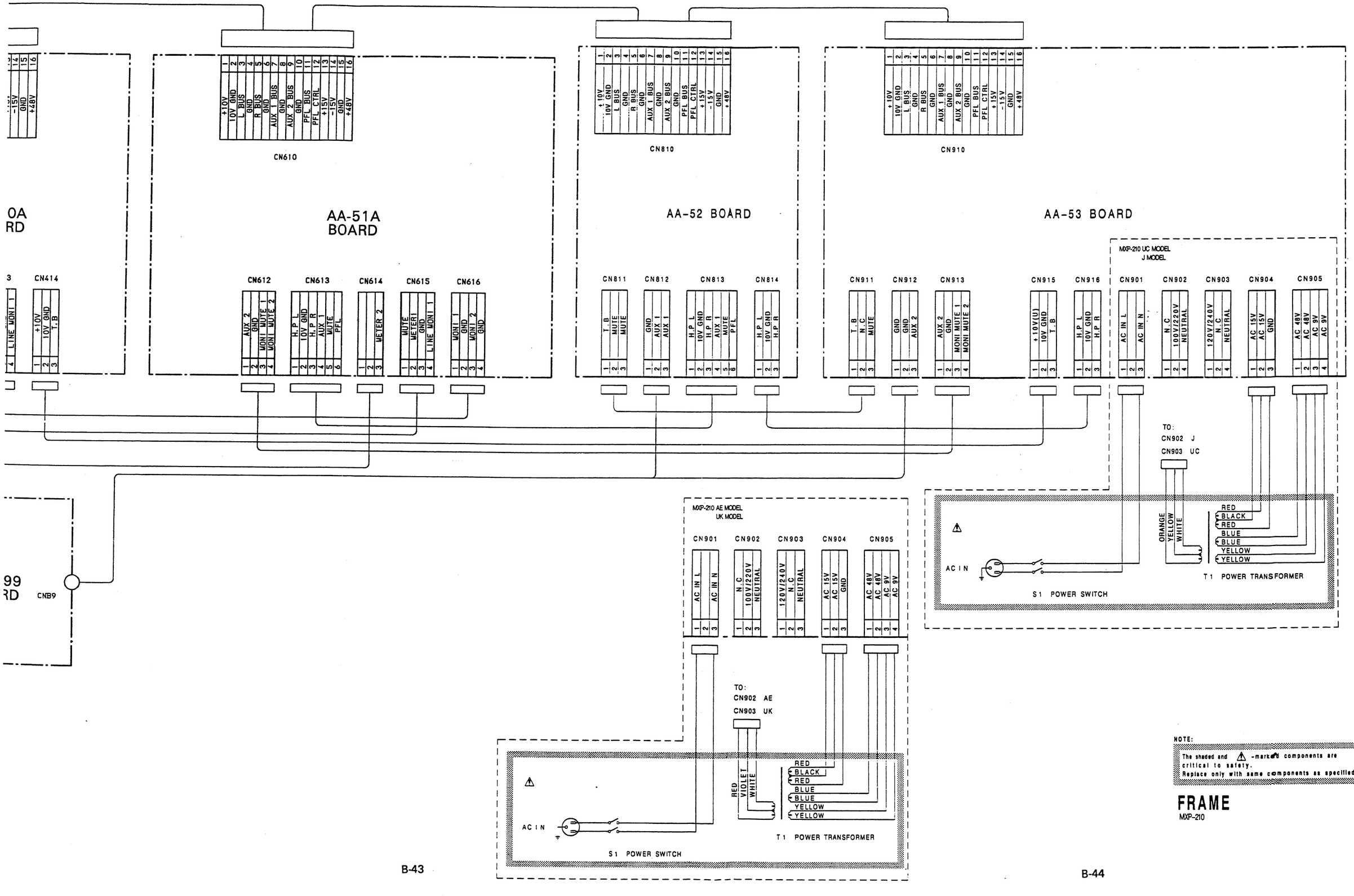
MT-63A BOARD



NOTES:
• The DC voltage shows the value without signal.
• Voltages are measured with a VOM (50kΩ/V).

MT-63A BOARD
BOARD NO.1-633-755-11 & HIGHER
MXP-210


CNCN202
+10V
10V GND
L BUS
GND
R BUS
GND
AUX 1 BUS
GND
AUX 2 BUS
GND
PFL BUS
PFL CTRL
+15V
-15V
GND
+48V
IPM-24D BOARD
CN202
IPM-24D BOARD
CN102
IPM-24C BOARD
CN102
IPM-24C BOARD
CN102
IPM-24C BOARD
CN102
IPM-24C BOARD
CN303
IPM-24E BOARD
CN304
WON 1
GND
CN303
IPM-24E BOARD
CN304
CN410
AA-50A BOARD
CN411
10V GND
+10V
METER1
CN413
MUTE
METER1
GND
LINE MON1 1
CN414
+10V
10V GND
T.B
CN501
+10V
10V GND
METER 1
CN502
EDITOR
METER 2
MT-63A BOARD
CN-399 BOARD
CNB9



NOTE:

The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.

FRAME
MXP-210

SECTION C
REPLACEABLE PARTS

C-1. PARTS ORDERING INFORMATION

Standardization of Parts
Repair parts supplied from Sony Parts Center may not be always identical with the part which actually in use due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".
This manual's exploded views and electrical parts list are indicating the parts numbers of the "standardized genuine parts at present".

Parts marked with S in the column of SP
These parts are normally stocked as replaceable parts.

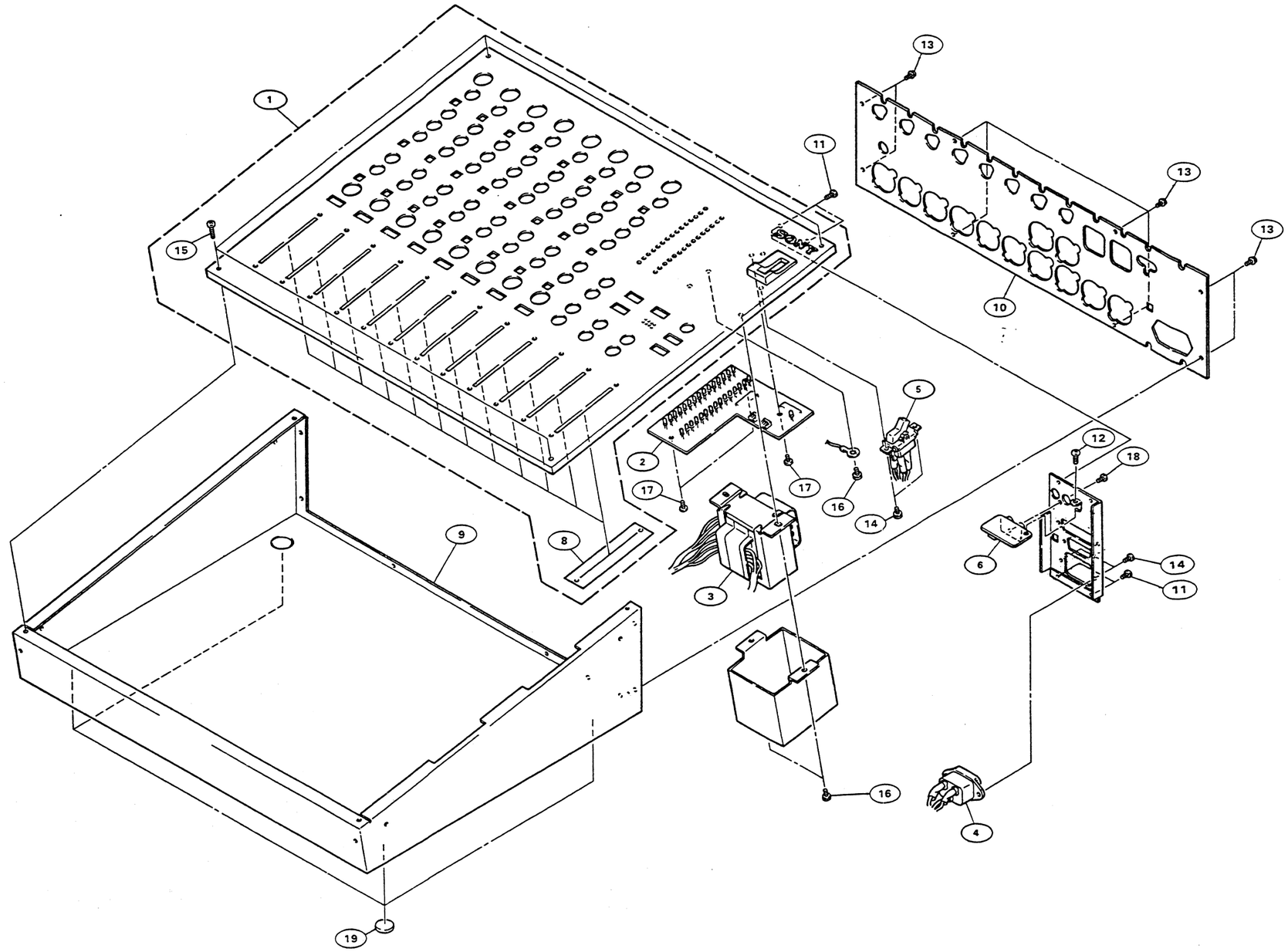
Parts marked with O in the column of SP
Orders for these parts will be processed, but allow for additional delivery time.

Parts without Part No.
These parts are not stocked because they are seldom required for routine service.

The components marked with ⚠ are critical to safe operation.
These components must be replaces with the same ones as described on the Parts List.

C-2. EXPLODED VIEWS AND PARTS

CASE ASSY

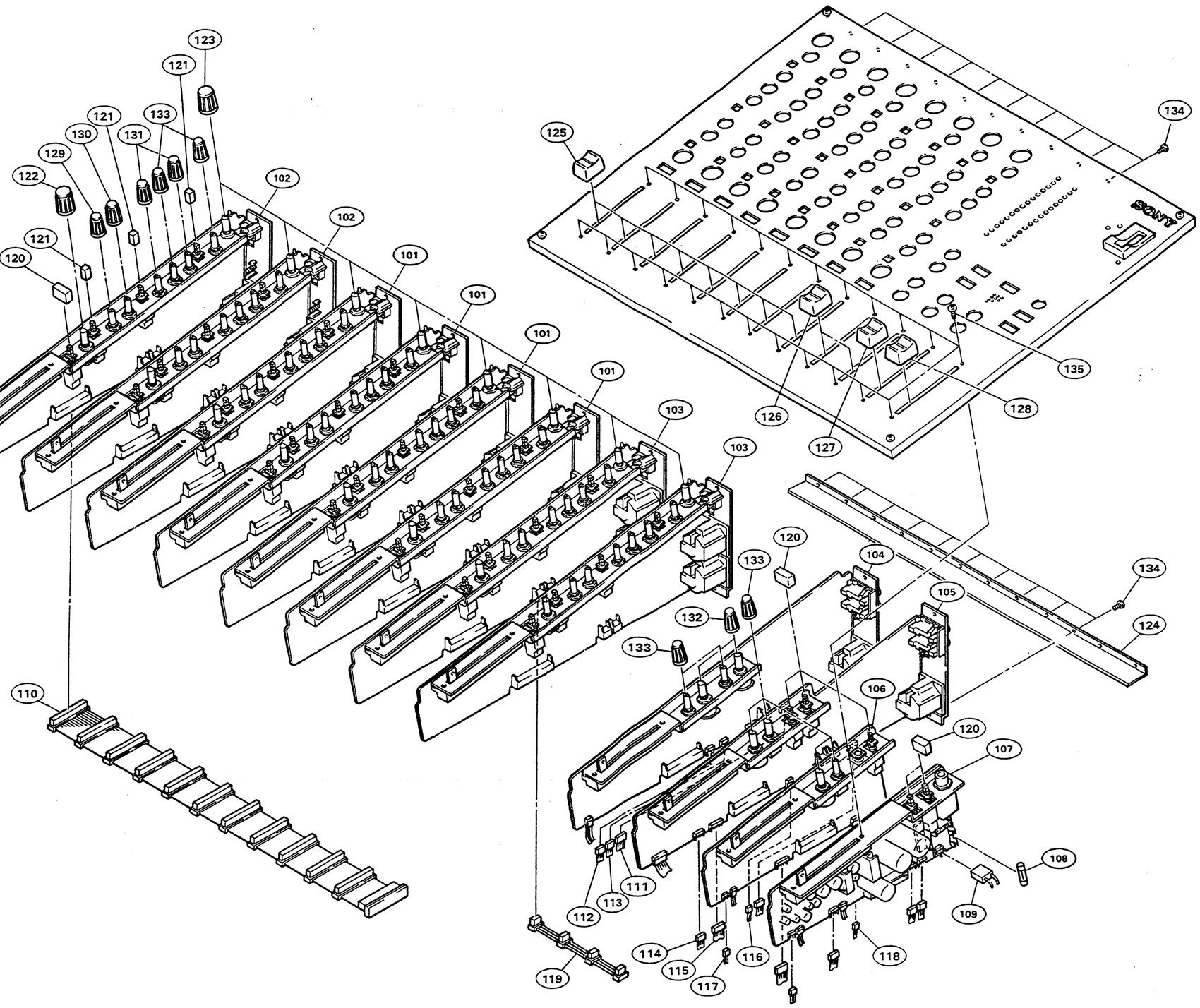


Index No.	Parts No.	SP	Description
1	A-4323-468-A	s	PANEL ASSY, FRONT
2	A-4380-092-A	o	COMPLETE PCB, MT-63A
⚠3	1-449-951-11	s	TRANSFORMER, POWER (For MXP-210 J, UC)
	1-449-952-11	s	TRANSFORMER, POWER (For MXP-210 AE, UK)
4	1-560-222-11	s	INLET 3P
5	1-570-743-21	s	SWITCH, AC POWER
6	1-633-756-11	o	PC BOARD, CN-399
8	4-935-160-01	s	COVER, DUST PROTECTION
9	4-935-171-01	s	CASE
10	4-935-178-01	s	PANEL, ORNAMENTAL CONNECTOR
11	7-621-770-87	s	SCREW +B2.6x5
12	7-628-254-00	s	SCREW +PS2.6x5
13	7-682-546-09	s	SCREW +B3x5
14	7-682-547-04	s	SCREW +B3x6
15	7-682-550-09	s	SCREW +B3x12
16	7-682-160-01	s	SCREW +P4x6
17	7-682-647-09	s	SCREW +PS3x6
18	7-685-647-79	s	SCREW +BVTP3x10
19	9-911-849-99	s	FELT (2)

C-1

C-2

MODULES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SONY
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Index No.	Parts No.	SP	Description
101	A-4382-382-A	o	COMPLETE PCB, IPM-24C
102	A-4382-384-A	o	COMPLETE PCB, IPM-24D
103	A-4382-386-A	o	COMPLETE PCB, IPM-24E
104	A-4385-339-A	o	COMPLETE PCB, AA-50A
105	A-4385-341-A	o	COMPLETE PCB, AA-51A
106	A-4385-351-A	o	COMPLETE PCB, AA-52
107	A-4385-353-A	o	COMPLETE PCB, AA-53
⚠108	1-532-740-11	s	FUSE, GLASS TUBE 1A (For MXP-210 J, UC)
	1-532-078-00	s	FUSE, TIME-LAG 1A (For MXP-210 AE, UK)
109	1-562-210-11	s	CONTACT, CONNECTOR
	1-562-211-11	s	HOUSING, CONNECTOR 3P
110	1-569-372-11	s	HOUSING, CONNECTOR 16P
111	1-945-396-11	o	HARNESS (CN413)
112	1-945-397-11	o	HARNESS (CN414)
113	1-945-398-11	o	HARNESS (CN501)
114	1-945-399-11	o	HARNESS (CN612)
115	1-945-400-11	o	HARNESS (CN613)
116	1-945-401-11	o	HARNESS (CN614)
117	1-945-402-11	o	HARNESS (CN811)
118	1-945-403-11	o	HARNESS (CN814)
119	1-945-408-11	o	HARNESS (CN616)
120	2-380-411-21	s	KNOB (LARGE), PUSH BUTTON
121	2-380-412-41	s	KNOB (SMALL), PUSH BUTTON
122	4-906-510-21	s	KNOB (LARGE), ROTARY
123	4-906-510-31	s	KNOB (LARGE), ROTARY
124	4-935-170-01	o	STOPPER, PC BOARD
125	4-935-180-01	s	KNOB, SLIDE VR
126	4-935-180-11	s	KNOB, SLIDE VR
127	4-935-180-21	s	KNOB, SLIDE VR
128	4-935-180-31	s	KNOB, SLIDE VR
129	4-935-181-01	s	KNOB (SMALL), ROTARY
130	4-935-181-11	s	KNOB (SMALL), ROTARY
131	4-935-181-21	s	KNOB (SMALL), ROTARY
132	4-935-181-31	s	KNOB (SMALL), ROTARY
133	4-935-181-41	s	KNOB (SMALL), ROTARY
134	7-621-770-87	s	SCREW +B2.6x5
135	7-682-546-09	s	SCREW +B3x5

C-3. ELECTRICAL PARTS LIST

STANDARDIZED PARTS LIST

Replacements for capacitors and resistors not given in each board parts lists are shown below.
If a capacitor with the desired working voltage is not found, choose one of a higher working voltage.

MYLAR CAPACITOR

Part No.	SP	Description
1-130-467-00	s	CAP, MYLAR 470pF 5% 50V
1-130-468-00	s	CAP, MYLAR 560pF 5% 50V
1-130-469-00	s	CAP, MYLAR 680pF 5% 50V
1-130-470-00	s	CAP, MYLAR 820pF 5% 50V
1-130-471-00	s	CAP, MYLAR 1000pF 5% 50V
1-130-472-00	s	CAP, MYLAR 1200pF 5% 50V
1-130-473-00	s	CAP, MYLAR 1500pF 5% 50V
1-130-474-00	s	CAP, MYLAR 1800pF 5% 50V
1-130-475-00	s	CAP, MYLAR 2200pF 5% 50V
1-130-476-00	s	CAP, MYLAR 2700pF 5% 50V
1-130-477-00	s	CAP, MYLAR 3300pF 5% 50V
1-130-478-00	s	CAP, MYLAR 3900pF 5% 50V
1-130-479-00	s	CAP, MYLAR 4700pF 5% 50V
1-130-480-00	s	CAP, MYLAR 5600pF 5% 50V
1-130-481-00	s	CAP, MYLAR 6800pF 5% 50V
1-130-482-00	s	CAP, MYLAR 8200pF 5% 50V
1-130-483-00	s	CAP, MYLAR 0.01 5% 50V
1-130-484-00	s	CAP, MYLAR 0.012 5% 50V
1-130-485-00	s	CAP, MYLAR 0.015 5% 50V
1-130-486-00	s	CAP, MYLAR 0.018 5% 50V
1-130-487-00	s	CAP, MYLAR 0.022 5% 50V
1-130-488-00	s	CAP, MYLAR 0.027 5% 50V
1-130-489-00	s	CAP, MYLAR 0.033 5% 50V
1-130-490-11	s	CAP, MYLAR 0.039 5% 50V
1-130-491-00	s	CAP, MYLAR 0.047 5% 50V
1-130-492-11	s	CAP, MYLAR 0.056 5% 50V
1-130-493-00	s	CAP, MYLAR 0.068 5% 50V
1-130-494-11	s	CAP, MYLAR 0.082 5% 50V
1-130-495-00	s	CAP, MYLAR 0.1 5% 50V
1-130-496-00	s	CAP, MYLAR 0.12 5% 50V
1-130-497-00	s	CAP, MYLAR 0.15 5% 50V
1-130-498-00	s	CAP, MYLAR 0.18 5% 50V
1-130-499-00	s	CAP, MYLAR 0.22 5% 50V
1-136-502-11	s	CAP, MYLAR 0.33 5% 50V

CARBON RESISTOR

Part No.	SP	Description
1-249-381-11	s	RES, CARBON 1.0 5% 1/4W
1-249-382-11	s	RES, CARBON 1.2 5% 1/4W
1-249-383-11	s	RES, CARBON 1.5 5% 1/4W
1-249-384-11	s	RES, CARBON 1.8 5% 1/4W
1-249-385-11	s	RES, CARBON 2.2 5% 1/4W
1-249-386-11	s	RES, CARBON 2.7 5% 1/4W
1-249-387-11	s	RES, CARBON 3.3 5% 1/4W
1-249-388-11	s	RES, CARBON 3.9 5% 1/4W
1-249-389-11	s	RES, CARBON 4.7 5% 1/4W
1-249-390-11	s	RES, CARBON 5.6 5% 1/4W
1-249-391-11	s	RES, CARBON 6.8 5% 1/4W
1-249-392-11	s	RES, CARBON 8.2 5% 1/4W
1-249-393-11	s	RES, CARBON 10 5% 1/4W
1-249-394-11	s	RES, CARBON 12 5% 1/4W
1-249-395-11	s	RES, CARBON 15 5% 1/4W

(CARBON RESISTOR)

Part No.	SP	Description
1-249-396-11	s	RES, CARBON 18 5% 1/4W
1-249-397-11	s	RES, CARBON 22 5% 1/4W
1-249-398-11	s	RES, CARBON 27 5% 1/4W
1-249-399-11	s	RES, CARBON 33 5% 1/4W
1-249-400-11	s	RES, CARBON 39 5% 1/4W
1-249-401-11	s	RES, CARBON 47 5% 1/4W
1-249-402-11	s	RES, CARBON 56 5% 1/4W
1-249-403-11	s	RES, CARBON 68 5% 1/4W
1-215-394-00	s	RES, METAL 75 1% 1/6W
1-249-404-11	s	RES, CARBON 82 5% 1/4W
1-249-405-11	s	RES, CARBON 100 5% 1/4W
1-249-406-11	s	RES, CARBON 120 5% 1/4W
1-249-407-11	s	RES, CARBON 150 5% 1/4W
1-249-408-11	s	RES, CARBON 180 5% 1/4W
1-249-409-11	s	RES, CARBON 220 5% 1/4W
1-249-410-11	s	RES, CARBON 270 5% 1/4W
1-249-411-11	s	RES, CARBON 330 5% 1/4W
1-249-412-11	s	RES, CARBON 390 5% 1/4W
1-249-413-11	s	RES, CARBON 470 5% 1/4W
1-249-414-11	s	RES, CARBON 560 5% 1/4W
1-249-415-11	s	RES, CARBON 680 5% 1/4W
1-249-416-11	s	RES, CARBON 820 5% 1/4W
1-249-417-11	s	RES, CARBON 1.0k 5% 1/4W
1-249-418-11	s	RES, CARBON 1.2k 5% 1/4W
1-249-419-11	s	RES, CARBON 1.5k 5% 1/4W
1-249-420-11	s	RES, CARBON 1.8k 5% 1/4W
1-249-421-11	s	RES, CARBON 2.2k 5% 1/4W
1-249-422-11	s	RES, CARBON 2.7k 5% 1/4W
1-249-423-11	s	RES, CARBON 3.3k 5% 1/4W
1-249-424-11	s	RES, CARBON 3.9k 5% 1/4W
1-249-425-11	s	RES, CARBON 4.7k 5% 1/4W
1-249-426-11	s	RES, CARBON 5.6k 5% 1/4W
1-249-427-11	s	RES, CARBON 6.8k 5% 1/4W
1-249-428-11	s	RES, CARBON 8.2k 5% 1/4W
1-249-429-11	s	RES, CARBON 10k 5% 1/4W
1-249-430-11	s	RES, CARBON 12k 5% 1/4W
1-249-431-11	s	RES, CARBON 15k 5% 1/4W
1-249-432-11	s	RES, CARBON 18k 5% 1/4W
1-249-433-11	s	RES, CARBON 22k 5% 1/4W
1-249-434-11	s	RES, CARBON 27k 5% 1/4W
1-249-435-11	s	RES, CARBON 33k 5% 1/4W
1-249-436-11	s	RES, CARBON 39k 5% 1/4W
1-249-437-11	s	RES, CARBON 47k 5% 1/4W
1-249-438-11	s	RES, CARBON 56k 5% 1/4W
1-249-439-11	s	RES, CARBON 68k 5% 1/4W
1-249-440-11	s	RES, CARBON 82k 5% 1/4W
1-249-441-11	s	RES, CARBON 100k 5% 1/4W
1-215-471-00	s	RES, METAL 120k 1% 1/6W
1-215-473-00	s	RES, METAL 150k 1% 1/6W
1-215-475-00	s	RES, METAL 180k 1% 1/6W
1-215-477-00	s	RES, METAL 220k 1% 1/6W
1-215-479-00	s	RES, METAL 270k 1% 1/6W
1-215-481-00	s	RES, METAL 330k 1% 1/6W
1-215-483-00	s	RES, METAL 390k 1% 1/6W
1-215-485-00	s	RES, METAL 470k 1% 1/6W
1-215-487-00	s	RES, METAL 560k 1% 1/6W
1-215-489-00	s	RES, METAL 680k 1% 1/6W
1-215-491-00	s	RES, METAL 820k 1% 1/6W
1-215-493-00	s	RES, METAL 1.0M 1% 1/6W

Ref. No.	Parts No.	SP	Description
AA-50A BOARD			
-	A-4385-339-A	o	COMPLETE PCB, AA-50A
(This assembly includes the following parts.)			
-	7-628-254-00	s	SCREW +PS2.6x5
-	7-682-548-04	s	SCREW +B3x8
-	7-685-647-79	s	SCREW +BVTP3x10
C401	1-124-963-11	s	CAP, ELECT 33 20% 16V
C403	1-102-973-00	s	CAP, CERAMIC 100P 5% 50V
C404	1-124-477-11	s	CAP, ELECT 47 20% 25V
C405	1-124-963-11	s	CAP, ELECT 33 20% 16V
C406	1-102-973-00	s	CAP, CERAMIC 100P 5% 50V
C407	1-124-477-11	s	CAP, ELECT 47 20% 25V
C408	1-126-176-11	s	CAP, ELECT 220 20% 10V
C410	1-102-959-00	s	CAP, CERAMIC 22P 5% 50V
C411	1-124-963-11	s	CAP, ELECT 33 20% 16V
C412	1-124-963-11	s	CAP, ELECT 33 20% 16V
C414	1-124-963-11	s	CAP, ELECT 33 20% 16V
C415	1-130-483-00	s	CAP, MYLAR 0.01 5% 50V
C417	1-126-176-11	s	CAP, ELECT 220 20% 10V
C418	1-126-176-11	s	CAP, ELECT 220 20% 10V
C423	1-126-096-11	s	CAP, ELECT 10 20% 35V
C441	1-124-963-11	s	CAP, ELECT 33 20% 16V
C442	1-126-096-11	s	CAP, ELECT 10 20% 35V
CN401	1-569-373-11	s	CONNECTOR (RECEPTACLE)
CN410	1-569-375-11	s	PIN, CONNECTOR 16P
CN411	1-506-482-11	s	PIN, CONNECTOR 3P
CN412	1-506-482-11	s	PIN, CONNECTOR 3P
CN413	1-506-483-21	s	PIN, CONNECTOR 4P
CN414	1-506-482-11	s	PIN, CONNECTOR 3P
D401	8-719-911-19	s	DIODE 1SS119
D402	8-719-911-19	s	DIODE 1SS119
IC401	8-759-945-58	s	IC RC4558P
IC402	8-759-945-58	s	IC RC4558P
IC403	8-759-981-85	s	IC RC4556D
IC405	8-759-945-58	s	IC RC4558P
J401	1-569-378-11	s	JACK, PIN 4P
Q401	8-729-142-25	s	TRANSISTOR 2SD1020-HFE
R405	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R406	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R413	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R414	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R417	1-247-866-11	s	RES, CARBON 30K 5% 1/4W
R424	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R425	1-247-895-00	s	RES, CARBON 470K 5% 1/4W
R426	1-215-459-00	s	RES, METAL 39K 1% 1/6W
R427	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R428	1-215-459-00	s	RES, METAL 39K 1% 1/6W
R430	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R431	1-215-459-00	s	RES, METAL 39K 1% 1/6W
R432	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R433	1-215-459-00	s	RES, METAL 39K 1% 1/6W
R435	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R436	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R442	1-247-864-11	s	RES, CARBON 24K 5% 1/4W
R446	1-247-881-00	s	RES, CARBON 120K 5% 1/4W
R452	1-247-828-11	s	RES, CARBON 750 5% 1/4W

Ref. No.	Parts No.	SP	Description
RV401	1-238-925-11	s	RES, VAR, CARBON 20K
RV402	1-238-925-11	s	RES, VAR, CARBON 20K
RV403	1-238-928-11	s	RES, VAR, CARBON 20Kx2
RV404	1-238-928-11	s	RES, VAR, CARBON 20Kx2
RV405	1-238-921-11	s	RES, VAR, SLIDE 20K
AA-51A BOARD			
-	A-4385-341-A	o	COMPLETE PCB, AA-51A
(This assembly includes the following parts.)			
-	7-628-254-00	s	SCREW +PS2.6x5
-	7-682-548-04	s	SCREW +B3x8
-	7-685-647-79	s	SCREW +BVTP3x10
C601	1-124-963-11	s	CAP, ELECT 33 20% 16V
C602	1-124-963-11	s	CAP, ELECT 33 20% 16V
C603	1-124-963-11	s	CAP, ELECT 33 20% 16V
C604	1-124-963-11	s	CAP, ELECT 33 20% 16V
C607	1-102-973-00	s	CAP, CERAMIC 100P 5% 50V
C608	1-102-973-00	s	CAP, CERAMIC 100P 5% 50V
C609	1-124-963-11	s	CAP, ELECT 33 20% 16V
C610	1-126-096-11	s	CAP, ELECT 10 20% 35V
C611	1-126-096-11	s	CAP, ELECT 10 20% 35V
C612	1-126-176-11	s	CAP, ELECT 220 20% 10V
C614	1-102-959-00	s	CAP, CERAMIC 22P 5% 50V
C615	1-124-963-11	s	CAP, ELECT 33 20% 16V
C616	1-124-963-11	s	CAP, ELECT 33 20% 16V
C618	1-124-963-11	s	CAP, ELECT 33 20% 16V
C619	1-130-483-00	s	CAP, MYLAR 0.01 5% 50V
C620	1-126-176-11	s	CAP, ELECT 220 20% 10V
C621	1-126-176-11	s	CAP, ELECT 220 20% 10V
C623	1-124-963-11	s	CAP, ELECT 33 20% 16V
C624	1-124-963-11	s	CAP, ELECT 33 20% 16V
CN601	1-569-373-11	s	CONNECTOR (RECEPTACLE)
CN610	1-569-375-11	s	PIN, CONNECTOR 16P
CN612	1-506-483-21	o	PIN, CONNECTOR 4P
CN613	1-506-485-11	o	PIN, CONNECTOR 6P
CN614	1-506-482-11	o	PIN, CONNECTOR 3P
CN615	1-506-483-21	o	PIN, CONNECTOR 4P
CN616	1-506-482-11	o	PIN, CONNECTOR 3P
D601	8-719-110-13	s	DIODE RD9.1ES-B2
D602	8-719-110-13	s	DIODE RD9.1ES-B2
D603	8-719-911-19	s	DIODE 1SS119
D604	8-719-911-19	s	DIODE 1SS119
D605	8-719-911-19	s	DIODE 1SS119
D606	8-719-911-19	s	DIODE 1SS119
IC601	8-759-040-53	s	IC MC14053BCP
IC602	8-759-040-53	s	IC MC14053BCP
IC603	8-759-945-58	s	IC RC4558P
IC604	8-759-945-58	s	IC RC4558P
IC605	8-759-945-58	s	IC RC4558P
J601	1-569-378-11	s	JACK, PIN 4P
Q601	8-729-119-76	s	TRANSISTOR 2SA1175-HFE
Q602	8-729-119-76	s	TRANSISTOR 2SA1175-HFE
Q603	8-729-142-25	s	TRANSISTOR 2SD1020-HFE
Q604	8-729-119-76	s	TRANSISTOR 2SA1175-HFE
Q605	8-729-921-65	s	TRANSISTOR DTC143ES

NOTE : Please see pages C-6 for the part numbers of capacitors and resistors that are not listed in the parts list.

Ref. No.	Parts No.	SP	Description
Q606	8-729-142-25	s	TRANSISTOR 2SD1020-HFE
Q607	8-729-142-25	s	TRANSISTOR 2SD1020-HFE
Q608	8-729-142-25	s	TRANSISTOR 2SD1020-HFE
R632	1-247-881-00	s	RES, CARBON 120K 5% 1/4W
R639	1-247-866-11	s	RES, CARBON 30K 5% 1/4W
R646	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R647	1-247-895-00	s	RES, CARBON 470K 5% 1/4W
R648	1-215-459-00	s	RES, METAL 39K 1% 1/6W
R649	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R650	1-215-459-00	s	RES, METAL 39K 1% 1/6W
R652	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R654	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R655	1-215-459-00	s	RES, METAL 39K 1% 1/6W
R656	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R657	1-215-459-00	s	RES, METAL 39K 1% 1/6W
R659	1-215-445-00	s	RES, METAL 10K 1% 1/6W
R680	1-247-828-11	s	RES, CARBON 750 5% 1/4W
R682	1-247-828-11	s	RES, CARBON 750 5% 1/4W
RV601	1-238-926-11	s	RES, VAR, CARBON 20Kx2
RV603	1-238-921-11	s	RES, VAR, SLIDE 20K
S601	1-570-604-11	s	SWITCH, ROTARY
S602	1-554-522-00	s	SWITCH, PUSH (1 KEY)
S603	1-554-522-00	s	SWITCH, PUSH (1 KEY)

AA-52 BOARD

-	A-4385-351-A	o	COMPLETE PCB, AA-52

(This assembly includes the following parts.)

-	1-609-885-00	o	PC BOARD, MIC
-	2-380-406-00	o	SUPPORT, MICROPHONE
-	3-574-761-00	s	HOLDER, MICROPHONE
-	7-628-254-00	s	SCREW +PS2.6x5
C801	1-124-791-11	s	CAP, ELECT 1 20% 100V
C805	1-126-096-11	s	CAP, ELECT 10 20% 35V
C806	1-126-096-11	s	CAP, ELECT 10 20% 35V
C807	1-126-176-11	s	CAP, ELECT 220 20% 10V
C808	1-102-959-00	s	CAP, CERAMIC 22P 5% 50V
C812	1-124-477-11	s	CAP, ELECT 47 20% 25V
C814	1-126-176-11	s	CAP, ELECT 220 20% 10V
C815	1-124-963-11	s	CAP, ELECT 33 20% 16V
C816	1-124-963-11	s	CAP, ELECT 33 20% 16V
C818	1-124-477-11	s	CAP, ELECT 47 20% 25V
C820	1-126-096-11	s	CAP, ELECT 10 20% 35V
C822	1-124-791-11	s	CAP, ELECT 1 20% 100V
C825	1-126-096-11	s	CAP, ELECT 10 20% 35V
C826	1-126-096-11	s	CAP, ELECT 10 20% 35V
C827	1-126-096-11	s	CAP, ELECT 10 20% 35V
C828	1-126-096-11	s	CAP, ELECT 10 20% 35V
C829	1-124-472-11	s	CAP, ELECT 470 20% 10V
C830	1-124-473-11	s	CAP, ELECT 1000 20% 10V
C831	1-126-096-11	s	CAP, ELECT 10 20% 35V
C832	1-124-472-11	s	CAP, ELECT 470 20% 10V
C833	1-124-473-11	s	CAP, ELECT 1000 20% 10V
C834	1-102-959-00	s	CAP, CERAMIC 22P 5% 50V
C835	1-124-360-00	s	CAP, ELECT 1000 16V
CN810	1-569-375-11	s	PIN, CONNECTOR 16P
CN811	1-506-482-11	o	PIN, CONNECTOR 3P
CN812	1-506-482-11	o	PIN, CONNECTOR 3P
CN813	1-506-485-11	o	PIN, CONNECTOR 6P
CN814	1-506-482-11	o	PIN, CONNECTOR 3P

NOTE : Please see pages C-6 for the part numbers of capacitors and resistors that are not listed in the parts list.

Ref. No.	Parts No.	SP	Description
D801	8-719-911-19	s	DIODE 1SS119
D802	8-719-911-19	s	DIODE 1SS119
IC801	8-759-981-96	s	IC RC4560D
IC802	8-759-945-58	s	IC RC4558P
IC803	8-759-945-58	s	IC RC4558P
IC804	8-759-945-58	s	IC RC4558P
IC805	8-759-981-85	s	IC RC4556D
MIC1	8-814-189-31	s	MICROPHONE, BUILT-IN (C-1007A)
Q802	8-729-142-25	s	TRANSISTOR 2SD1020-HFE
R803	1-247-854-11	s	RES, CARBON 9.1K 5% 1/4W
R804	1-215-473-00	s	RES, METAL 150K 1% 1/6W
R805	1-215-473-00	s	RES, METAL 150K 1% 1/6W
R806	1-215-474-00	s	RES, METAL 160K 1% 1/6W
R850	1-247-828-11	s	RES, CARBON 750 5% 1/4W
RV802	1-238-921-11	s	RES, VAR, SLIDE 20K
RV803	1-238-925-11	s	RES, VAR, CARBON 20K
RV804	1-238-926-11	s	RES, VAR, CARBON 20Kx2
SW801	1-554-522-00	s	SWITCH, PUSH (1 KEY)

AA-53 BOARD

-	A-4385-353-A	o	COMPLETE PCB, AA-53

(This assembly includes the following parts.)

-	1-533-189-11	o	HOLDER, FUSE
-	7-628-254-00	s	SCREW +PS2.6x5
-	7-682-546-04	s	SCREW +B3x5
C901	1-126-176-11	s	CAP, ELECT 220 20% 10V
C902	1-124-963-11	s	CAP, ELECT 33 20% 16V
C903	1-124-963-11	s	CAP, ELECT 33 20% 16V
C904	1-124-477-11	s	CAP, ELECT 47 20% 25V
C905	1-124-478-11	s	CAP, ELECT 100 20% 25V
C907	1-126-096-11	s	CAP, ELECT 10 20% 35V
C908	1-126-233-11	s	CAP, ELECT 22 20% 50V
C909	1-126-094-11	s	CAP, ELECT 4.7 20% 35V
C910	1-126-101-11	s	CAP, ELECT 100 20% 16V
C911	1-124-360-00	s	CAP, ELECT 1000 16V
C912	1-124-636-00	s	CAP, ELECT 3300 20% 25V
C913	1-126-101-11	s	CAP, ELECT 100 20% 16V
C914	1-124-360-00	s	CAP, ELECT 1000 16V
C915	1-124-636-00	s	CAP, ELECT 3300 20% 25V
C916	1-126-101-11	s	CAP, ELECT 100 20% 16V
C917	1-124-360-00	s	CAP, ELECT 1000 16V
C918	1-124-636-00	s	CAP, ELECT 3300 20% 25V
C919	1-124-122-11	s	CAP, ELECT 100 20% 50V
C920	1-124-122-11	s	CAP, ELECT 100 20% 50V
C921	1-124-935-51	s	CAP, ELECT 470 20% 100V
C922 to 927	1-106-367-00	s	CAP, MYLAR 0.01 5% 200V
C934	1-102-959-00	s	CAP, CERAMIC 22P 5% 50V
CN901	1-564-321-00	o	PIN, CONNECTOR 2P
CN902	1-565-395-11	o	PIN, CONNECTOR 3P
CN903	1-565-395-11	o	PIN, CONNECTOR 3P
CN904	1-508-901-00	o	CONNECTOR, (MALE) 3P
CN905	1-508-902-00	o	CONNECTOR, (MALE) 4P
CN910	1-569-376-11	s	PIN, CONNECTOR 16P
CN911	1-506-482-11	o	PIN, CONNECTOR 3P
CN912	1-506-482-11	o	PIN, CONNECTOR 3P
CN913	1-506-483-21	o	PIN, CONNECTOR 4P
CN914	1-506-482-11	o	PIN, CONNECTOR 3P
CN915	1-506-482-11	o	PIN, CONNECTOR 3P
CN916	1-506-482-11	o	PIN, CONNECTOR 3P

Ref. No.	Parts No.	SP	Description
D901	8-719-110-03	s	DIODE RD7.5ES-B2
D902	8-719-911-19	s	DIODE 1SS119
D903	8-719-911-19	s	DIODE 1SS119
D904	8-719-911-19	s	DIODE 1SS119
D905	8-719-110-49	s	DIODE RD18ES-B2
D906	8-719-110-49	s	DIODE RD16EB
D907	8-719-110-17	s	DIODE RD10ES-B2
D908	8-719-110-63	s	DIODE RD24ES-B3
D909	8-719-110-63	s	DIODE RD24ES-B3
D910	8-719-511-40	s	DIODE S1VB40
D911	8-719-511-40	s	DIODE S1VB40
D912	8-719-511-40	s	DIODE S1VB40
D913	8-719-911-19	s	DIODE 1SS119
D914	8-719-911-19	s	DIODE 1SS119
IC901	8-759-945-58	s	IC RC4558P
J901	1-563-347-11	s	JACK
Q901	8-729-142-25	s	TRANSISTOR 2SD1020-HFE
Q902	8-729-119-76	s	TRANSISTOR 2SA1175-HFE
Q903	8-729-119-76	s	TRANSISTOR 2SA1175-HFE
Q904	8-729-808-78	s	TRANSISTOR 2SD1913SA-S
Q905	8-729-111-67	s	TRANSISTOR 2SB1274SA
Q906	8-729-281-53	s	TRANSISTOR 2SC1815GR
Q907	8-729-141-60	s	TRANSISTOR 2SD809-KFE
Q908	8-729-119-76	s	TRANSISTOR 2SA1175-HFE
R914	1-247-887-00	s	RES, CARBON 220K 5% 1/4W
R924	1-247-828-11	s	RES, CARBON 750 5% 1/4W
R925	1-247-820-11	s	RES, CARBON 360 5% 1/4W
RV901	1-238-921-11	s	RES, VAR, SLIDE 20K
S901	1-554-522-00	s	SWITCH, PUSH (1 KEY)
S902	1-554-522-00	s	SWITCH, PUSH (1 KEY)

CN-399 BOARD

-	1-633-756-11	o	PC BOARD, CN-399
CNB9	1-945-394-11	o	HARNESS (CNB9)
J1	1-569-377-11	s	JACK, PIN 2P

IPM-24C BOARD

-	A-4382-382-A	o	COMPLETE PCB, IPM-24C

(This assemby includes the following parts.)

-	7-628-254-00	s	SCREW +PS2.6x5
-	7-682-548-04	s	SCREW +B3x8
-	7-685-647-79	s	SCREW +BVTP3x10
C101	1-126-233-11	s	CAP, ELECT 22 20% 50V
C102	1-126-233-11	s	CAP, ELECT 22 20% 50V
C106	1-124-477-11	s	CAP, ELECT 47 20% 25V
C107	1-124-477-11	s	CAP, ELECT 47 20% 25V
C108	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C109	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C110	1-124-604-00	s	CAP, ELECT 330 20% 10V
C113	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C114	1-124-477-11	s	CAP, ELECT 47 20% 25V
C115	1-124-963-11	s	CAP, ELECT 33 20% 16V

NOTE : Please see pages C-6 for the part numbers of capacitors and resistors that are not listed in the parts list.

Ref. No.	Parts No.	SP	Description
C116	1-124-477-11	s	CAP, ELECT 47 20% 25V
C119	1-124-477-11	s	CAP, ELECT 47 20% 25V
C121	1-124-477-11	s	CAP, ELECT 47 20% 25V
C125	1-102-959-00	s	CAP, CERAMIC 22P 5% 50V
C126	1-102-110-00	s	CAP, CERAMIC 220P 10% 50V
C130	1-124-477-11	s	CAP, ELECT 47 20% 25V
C134	1-124-963-11	s	CAP, ELECT 33 20% 16V
C136	1-124-963-11	s	CAP, ELECT 33 20% 16V
C137	1-124-477-11	s	CAP, ELECT 47 20% 25V
C138	1-124-443-00	s	CAP, ELECT 100 20% 10V
C139	1-124-477-11	s	CAP, ELECT 47 20% 25V
C140	1-126-096-11	s	CAP, ELECT 10 20% 35V
C141	1-126-096-11	s	CAP, ELECT 10 20% 35V
C142	1-124-791-11	s	CAP, ELECT 1 20% 100V
CN101	1-566-853-11	s	CONNECTOR (RECEPTACLE) 3P
CN102	1-569-375-11	s	PIN, CONNECTOR 16P
D101	8-719-911-19	s	DIODE 1SS119
D102	8-719-911-19	s	DIODE 1SS119
D103	8-719-911-19	s	DIODE 1SS119
D104	8-719-911-19	s	DIODE 1SS119
D105	8-719-911-19	s	DIODE 1SS119
D106	8-719-812-41	s	DIODE TLR124
IC101	8-759-945-58	s	IC RC4558P
IC102	8-759-945-58	s	IC RC4558P
IC103	8-759-945-58	s	IC RC4558P
J101	1-565-406-21	s	JACK, PIN 1P
Q101	8-729-908-62	s	TRANSISTOR 2SD786
Q102	8-729-908-62	s	TRANSISTOR 2SD786
Q103	8-729-119-78	s	TRANSISTOR 2SC2785-HFE
R101	1-215-441-00	s	RES, METAL 6.8K 1% 1/6W
R102	1-215-441-00	s	RES, METAL 6.8K 1% 1/6W
R114	1-215-429-00	s	RES, METAL 2.2K 1% 1/6W
R115	1-215-429-00	s	RES, METAL 2.2K 1% 1/6W
R118	1-215-450-00	s	RES, METAL 16K 1% 1/6W
R119	1-215-450-00	s	RES, METAL 16K 1% 1/6W
R120	1-215-448-00	s	RES, METAL 13K 1% 1/6W
R121	1-215-448-00	s	RES, METAL 13K 1% 1/6W
R137	1-215-442-00	s	RES, METAL 7.5K 1% 1/6W
R138	1-247-852-11	s	RES, CARBON 7.5K 5% 1/4W
R166	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R167	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R172	1-212-873-11	s	RES, FUSE 47 5% 1/4W
R173	1-212-873-11	s	RES, FUSE 47 5% 1/4W
RV101	1-238-924-11	s	RES, VAR, CARBON 5K
RV102	1-238-922-11	s	RES, VAR, CARBON 10K
RV103	1-238-923-11	s	RES, VAR, CARBON 100K
RV104	1-238-923-11	s	RES, VAR, CARBON 100K
RV106	1-238-921-11	s	RES, VAR, SLIDE 20K
RV107	1-238-927-11	s	RES, VAR, CARBON 20Kx2
RV108	1-238-925-11	s	RES, VAR, CARBON 20K
RV109	1-238-925-11	s	RES, VAR, CARBON 20K
S101	1-572-260-11	s	SWITCH, ROTARY
S102	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S103	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S104	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S105	1-554-522-00	s	SWITCH, PUSH (1 KEY)

Ref. No.	Parts No.	SP	Description
IPM-24D BOARD			
-	A-4382-384-A	o	COMPLETE PCB, IPM-24D
(This assembly includes the following parts.)			
-	7-628-254-00	s	SCREW +PS2.6x5
-	7-682-548-04	s	SCREW +B3x8
-	7-685-647-79	s	SCREW +BVPT3x10
C204	1-124-477-11	s	CAP, ELECT 47 20% 25V
C205	1-124-477-11	s	CAP, ELECT 47 20% 25V
C206	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C207	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C208	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C209	1-124-604-00	s	CAP, ELECT 330 20% 10V
C212	1-126-096-11	s	CAP, ELECT 10 20% 35V
C213	1-124-443-00	s	CAP, ELECT 100 20% 10V
C215	1-102-112-00	s	CAP, CERAMIC 330P 10% 50V
C217	1-124-477-11	s	CAP, ELECT 47 20% 25V
C220	1-124-477-11	s	CAP, ELECT 47 20% 25V
C221	1-124-477-11	s	CAP, ELECT 47 20% 25V
C224	1-102-959-00	s	CAP, CERAMIC 22P 5% 50V
C226	1-102-110-00	s	CAP, CERAMIC 220P 10% 50V
C230	1-124-477-11	s	CAP, ELECT 47 20% 25V
C236	1-124-963-11	s	CAP, ELECT 33 20% 16V
C237	1-124-963-11	s	CAP, ELECT 33 20% 16V
C238	1-124-477-11	s	CAP, ELECT 47 20% 25V
C239	1-124-477-11	s	CAP, ELECT 47 20% 25V
C240	1-124-443-00	s	CAP, ELECT 100 20% 10V
C241	1-126-096-11	s	CAP, ELECT 10 20% 35V
C242	1-124-791-11	s	CAP, ELECT 1 20% 100V
C245	1-126-233-11	s	CAP, ELECT 22 20% 50V
C246	1-126-233-11	s	CAP, ELECT 22 20% 50V
C247	1-124-477-11	s	CAP, ELECT 47 20% 25V
CN201	1-566-853-11	s	CONNECTOR (RECEPTACLE) 3P
CN202	1-569-375-11	s	PIN, CONNECTOR 16P
D201	8-719-911-19	s	DIODE 1SS119
D202	8-719-911-19	s	DIODE 1SS119
D203	8-719-911-19	s	DIODE 1SS119
D204	8-719-911-19	s	DIODE 1SS119
D205	8-719-911-19	s	DIODE 1SS119
D206	8-719-812-41	s	DIODE TLR124
IC201	8-759-945-58	s	IC RC4558P
IC202	8-759-945-58	s	IC RC4558P
IC203	8-759-945-58	s	IC RC4558P
J201	1-565-406-21	s	JACK, PIN 1P
Q201	8-729-908-62	s	TRANSISTOR 2SD786
Q202	8-729-908-62	s	TRANSISTOR 2SD786
Q203	8-729-119-78	s	TRANSISTOR 2SC2785-HFE
R201	1-215-441-00	s	RES, METAL 6.8K 1% 1/6W
R202	1-215-441-00	s	RES, METAL 6.8K 1% 1/6W
R214	1-215-450-00	s	RES, METAL 16K 1% 1/6W
R215	1-215-450-00	s	RES, METAL 16K 1% 1/6W
R216	1-215-429-00	s	RES, METAL 2.2K 1% 1/6W
R217	1-215-429-00	s	RES, METAL 2.2K 1% 1/6W
R220	1-215-448-00	s	RES, METAL 13K 1% 1/6W
R221	1-215-448-00	s	RES, METAL 13K 1% 1/6W
R233	1-215-442-00	s	RES, METAL 7.5K 1% 1/6W
R234	1-247-852-11	s	RES, CARBON 7.5K 5% 1/4W
R260	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R261	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R266	1-212-873-11	s	RES, FUSE 47 5% 1/4W
R267	1-212-873-11	s	RES, FUSE 47 5% 1/4W
R274	1-215-477-00	s	RES, METAL 220K 1% 1/6W
R275	1-215-451-00	s	RES, METAL 18K 1% 1/6W
RV201	1-238-924-11	s	RES, VAR, CARBON 5K
RV202	1-238-922-11	s	RES, VAR, CARBON 10K
RV203	1-238-923-11	s	RES, VAR, CARBON 100K
RV204	1-238-923-11	s	RES, VAR, CARBON 100K
RV206	1-238-921-11	s	RES, VAR, SLIDE 20K
RV207	1-238-927-11	s	RES, VAR, CARBON 20Kx2
RV208	1-238-925-11	s	RES, VAR, CARBON 20K
RV209	1-238-925-11	s	RES, VAR, CARBON 20K
S201	1-572-260-11	s	SWITCH, ROTARY
S202	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S203	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S204	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S205	1-554-522-00	s	SWITCH, PUSH (1 KEY)
IPM-24E BOARD			
-	A-4382-396-A	o	COMPLETE PCB, IPM-24E
(This assembly includes the following parts.)			
-	7-628-254-00	s	SCREW +PS2.6x5
-	7-682-548-04	s	SCREW +B3x8
-	7-685-647-79	s	SCREW +BVTP3x10
C301	1-126-233-11	s	CAP, ELECT 22 20% 50V
C302	1-126-233-11	s	CAP, ELECT 22 20% 50V
C306	1-124-477-11	s	CAP, ELECT 47 20% 25V
C307	1-124-477-11	s	CAP, ELECT 47 20% 25V
C308	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C309	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C310	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C311	1-124-604-00	s	CAP, ELECT 330 20% 10V
C314	1-124-477-11	s	CAP, ELECT 47 20% 25V
C317	1-124-477-11	s	CAP, ELECT 47 20% 25V
C319	1-124-477-11	s	CAP, ELECT 47 20% 25V
C323	1-102-959-00	s	CAP, CERAMIC 22P 5% 50V
C324	1-102-110-00	s	CAP, CERAMIC 220P 10% 50V
C328	1-124-477-11	s	CAP, ELECT 47 20% 25V
C331	1-124-963-11	s	CAP, ELECT 33 20% 16V
C336	1-124-477-11	s	CAP, ELECT 47 20% 25V
C337	1-124-477-11	s	CAP, ELECT 47 20% 25V
C338	1-124-963-11	s	CAP, ELECT 33 20% 16V
C339	1-124-443-00	s	CAP, ELECT 100 20% 10V
C340	1-126-096-11	s	CAP, ELECT 10 20% 35V
C341	1-124-791-11	s	CAP, ELECT 1 20% 100V
C342	1-124-963-11	s	CAP, ELECT 33 20% 16V
C343	1-124-963-11	s	CAP, ELECT 33 20% 16V
C344	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C345	1-102-106-00	s	CAP, CERAMIC 100P 10% 50V
C346	1-124-477-11	s	CAP, ELECT 47 20% 25V
CN301	1-566-853-11	s	CONNECTOR (RECEPTACLE) 3P
CN302	1-566-853-11	s	CONNECTOR (RECEPTACLE) 3P
CN303	1-569-375-11	s	PIN, CONNECTOR 16P
CN304	1-506-482-11	o	PIN, CONNECTOR 3P
D301	8-719-911-19	s	DIODE 1SS119
D302	8-719-911-19	s	DIODE 1SS119
D303	8-719-911-19	s	DIODE 1SS119
D304	8-719-911-19	s	DIODE 1SS119
D305	8-719-911-19	s	DIODE 1SS119
D306	8-719-812-41	s	DIODE TLR124

NOTE : Please see pages C-6 for the part numbers of capacitors and resistors that are not listed in the parts list.

Ref. No.	Parts No.	SP	Description
IC301	8-759-945-58	s	IC RC4558P
IC302	8-759-945-58	s	IC RC4558P
IC303	8-759-945-58	s	IC RC4558P
J301	1-565-406-21	s	JACK, PIN 1P
Q301	8-729-908-62	s	TRANSISTOR 2SD786
Q302	8-729-908-62	s	TRANSISTOR 2SD786
Q303	8-729-119-78	s	TRANSISTOR 2SC2785-HFE
R312	1-215-429-00	s	RES, METAL 2.2K 1% 1/6W
R313	1-215-429-00	s	RES, METAL 2.2K 1% 1/6W
R314	1-215-450-00	s	RES, METAL 16K 1% 1/6W
R315	1-215-450-00	s	RES, METAL 16K 1% 1/6W
R318	1-215-448-00	s	RES, METAL 13K 1% 1/6W
R319	1-215-448-00	s	RES, METAL 13K 1% 1/6W
R332	1-215-442-00	s	RES, METAL 7.5K 1% 1/6W
R333	1-247-852-11	s	RES, CARBON 7.5K 5% 1/4W
R357	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R358	1-215-434-00	s	RES, METAL 3.6K 1% 1/6W
R363	1-212-873-11	s	RES, FUSE 47 5% 1/4W
R364	1-212-873-11	s	RES, FUSE 47 5% 1/4W
R369	1-215-441-00	s	RES, METAL 6.8K 1% 1/6W
R370	1-215-441-00	s	RES, METAL 6.8K 1% 1/6W
RV301	1-238-924-11	s	RES, VAR, CARBON 5K
RV302	1-238-922-11	s	RES, VAR, CARBON 10K
RV303	1-238-923-11	s	RES, VAR, CARBON 100K
RV304	1-238-923-11	s	RES, VAR, CARBON 100K
RV306	1-238-921-11	s	RES, VAR, SLIDE 20K
RV307	1-238-927-11	s	RES, VAR, CARBON 20Kx2
RV308	1-238-925-11	s	RES, VAR, CARBON 20K
RV309	1-238-925-11	s	RES, VAR, CARBON 20K
S301	1-572-260-11	s	SWITCH, ROTARY
S302	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S303	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S304	1-554-472-00	s	SWITCH, PUSH (1 KEY)
S305	1-554-522-00	s	SWITCH, PUSH (1 KEY)

Ref. No.	Parts No.	SP	Description
MT-63A BOARD			
-	A-4380-092-A	o	COMPLETE PCB, MT-63A
(This assembly includes the following parts.)			
C501	1-124-584-00	s	CAP, ELECT 100 20% 10V
C503	1-124-584-00	s	CAP, ELECT 100 20% 10V
C504	1-124-584-00	s	CAP, ELECT 100 20% 10V
C506	1-124-584-00	s	CAP, ELECT 100 20% 10V
CN501	1-506-482-11	o	PIN, CONNECTOR 3P
CN502	1-506-482-11	o	PIN, CONNECTOR 3P
D501 to 510	8-719-812-43	s	DIODE TLG124A
D511 to 515	8-719-812-41	s	DIODE TLR124
D516 to 525	8-719-812-43	s	DIODE TLG124A
D526 to 530	8-719-812-41	s	DIODE TLR124
D532	8-719-812-43	s	DIODE TLG124A
IC501	8-759-989-87	s	IC IR2E03
IC502	8-759-989-87	s	IC IR2E03

NOTE : Please see pages C-6 for the part numbers of capacitors and resistors that are not listed in the parts list.

Ref. No.	Parts No.	SP	Description
FRAME			
⚠-	1-532-740-11	s	FUSE, GLASS TUBE 1A (For MXP-210 J, UC)
	1-532-078-00	s	FUSE, TIME-LAG 1A (For MXP-210 AE, UK)
-	1-560-222-11	s	INLET 3P
-	1-562-210-11	s	CONTACT, CONNECTOR
-	1-562-211-11	s	HOUSING, CONNECTOR 3P
-	1-569-372-11	s	HOUSING, CONNECTOR 16P
CN413	1-945-396-11	o	HARNESS (CN413)
CN414	1-945-397-11	o	HARNESS (CN414)
CN501	1-945-398-11	o	HARNESS (CN501)
CN612	1-945-399-11	o	HARNESS (CN612)
CN613	1-945-400-11	o	HARNESS (CN613)
CN614	1-945-401-11	o	HARNESS (CN614)
CN811	1-945-402-11	o	HARNESS (CN811)
CN814	1-945-403-11	o	HARNESS (CN814)
CN614	1-945-408-11	o	HARNESS (CN616)
⚠S1	1-570-743-21	s	SWITCH, AC POWER
T1	1-449-951-11	s	TRANSFORMER, POWER (For MXP-210 J, UC)
	1-449-952-11	s	TRANSFORMER, POWER (For MXP-210 AE, UK)

C-4. ACCESSORIES SUPPLIED

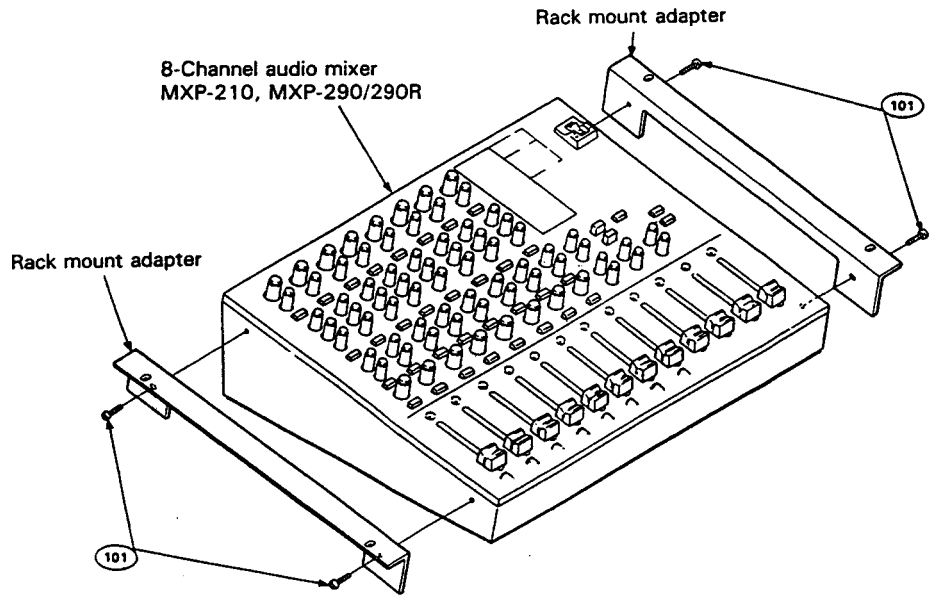
Q'ty	Parts No.	SP	Description
1pc	1-534-754-00	s	CORD, POWER (For MXP-210 J)
	1-534-827-14	s	CORD, POWER (For MXP-210 UC)
	1-556-760-11	s	CORD, POWER (For MXP-210 AE, UK)

C-5. OPTIONS

Index
No. Parts No. SP Description

MXBK-200 (RACK MOUNT ADAPTER)

101 7-682-561-09 s SCREW +B4x8



MXBK-201 (TABLE KIT)

201 7-682-563-09 s SCREW +B4x12